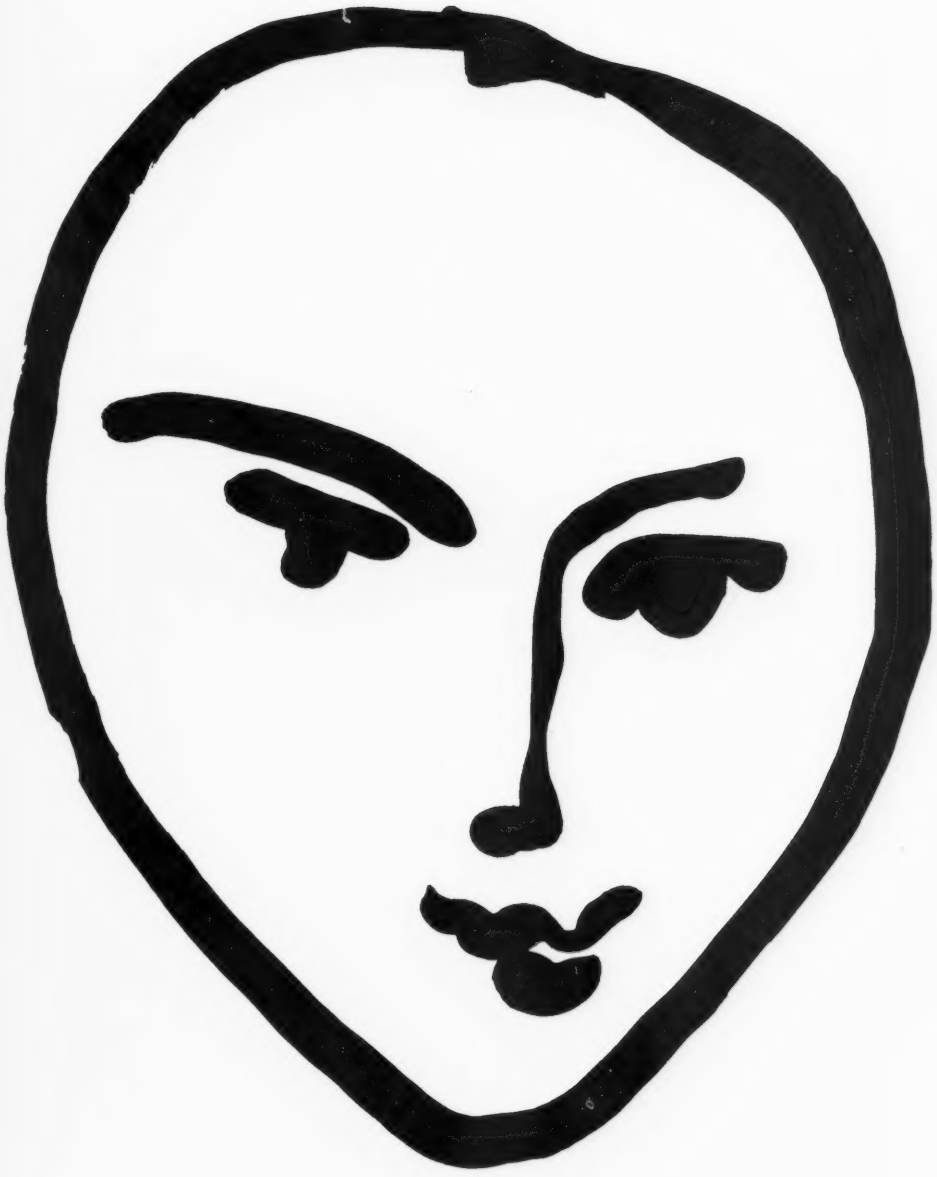
Print



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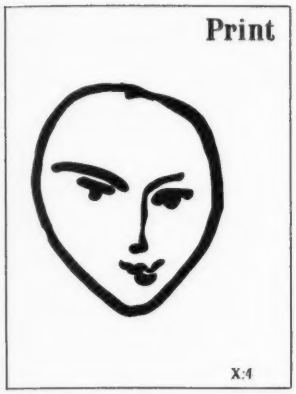

The cover is one of a series of aquatints done by Henri Matisse during the winter of 1951-52. It was a bequest to the Museum of Modern Art by the late Curt Valentin.

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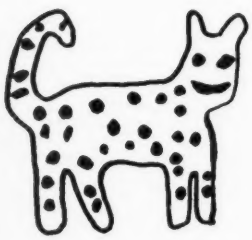

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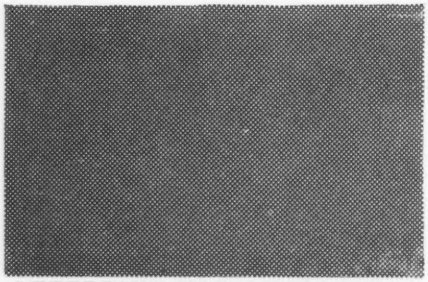

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TOP DRAWER

Leo Joachim, Editor of New York's *Printing News* is a "long time gentleman" in his field. Recently his paper carried an interesting piece that undoubtedly stems from Leo's experience with that every fourth year pastime called "election year." We quote—

"1: Be sure to get written order signed by a financially responsible individual. An order issued by a political committee or subdivision is worth no more than the group's financial resources when election is over. . . .

2: When written order from one or more financially responsible individuals cannot be obtained, insist on substantial down payment, with balance on delivery.

3: Where credit is extended, based on written guarantee of payment, include provision that bill is to be paid within 30 days (or within period that will make billing due and payable *before Election Day*).

4: With a lot of political printing wanted in a rush, cost of overtime and special service should be anticipated in estimate.

5: Get written OK's on proofs and on substantial deviations from original specifications.

6: Get receipts for deliveries, with full name of signer. Note on every receipt description of work delivered and specific quantity.

Printers in New York State are reminded on the NYS law which requires that every piece of political printing must contain name and post office address either of printer or of person or committee at whose instance such piece is printed or reproduced."

All of this is sound advice, not only for printers but anyone in our field—designers, paper suppliers, engravers, type setters. Politics being what they are "Let the *seller* beware" would seem to be a good election year slogan.

"The paper-maker's son has no school books" seems to be the case out in Ohio. This year's Beckett paper sample packet, usually thought of as a pretty important selling tool, had to be abandoned because of a shortage of their own products. With a summer installation of new production facilities we trust Beckett's sales manager has not only enough for samples but can also equip his children with paper for those empty pages that will start being filled when school opens again.

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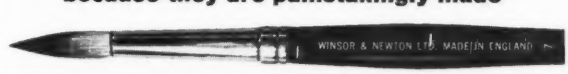

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Hot Corner

Top Drawer (Continued)

We wish it were compulsory to include the printer's name (and of the designer, for that matter) on all the printed material that finds its way into the mails.

We recently received a quietly handsome, well printed, 20 page brochure from the Creole Petroleum Co. Its content was an address by Public Relations Counsel, Earl Newsom, before the Venezuelan Chamber of Commerce (USA). His proposal for increased cultural exchange as a means of furthering international understanding, made good sense and good reading. We also agree that the content and thought behind the message is more important than the craftsman or artist who gave the idea visual form. But still, we have that old nagging, Alfred Hitchcock feeling, "Who done it?"

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Top Drawer (Continued)

The Type Directors Club has come up with its new slate of officers for the 1956–57 season. With twelve different categories of officers and committees we can't list them all but Arthur Lee is to be President with Abraham A. Versh as Vice-President. Our opposite number on *Art Direction*, Edward Gottschall, will be Treasurer. Alex Nesbitt who does many of our book reviews will be Chairman of the Scholarship Committee.

One of our small pleasures is to receive the sporadic reports of the whereabouts of all the top photographers who work together in a cooperative known as Magnum Photos.

John Morris, Executive Editor of the group, is an ex-*Life* staffer (as indeed who isn't). The late Bob Capa was a charter member as was Werner Bischof. Other cameramen include some of the top names in the field—Henri Cartier-Bresson, George Rodger, Ernst Haas, David Seymour, Philippe Halsman, Ansel Adams, to name a few.

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Where's Magnum reads like a very exotic and exciting travel book—Cornell Capa is in Lima, Dennis Stock in Tokyo, René Burri, Sicily, Marc Riboud, Nepal—and where are we? Right on 44th Street in New York, feet on the desk and our thoughts—well anywhere but mid-town Manhattan.

The Lithographers National Association has recently seized on, and rather joyfully publicized, a government report.

The report, a manufacturing census, shows that for the seven years 1947–1954, lithography's net shipment (equivalent to net sales) rose 98%. With 76,000 employees, the litho people did a 930 million dollar gross in 1954.

Letterpress and gravure printing, while still infinitely larger in gross sales and number of employees (2,215 million dollars and 200,000 people), increased their business by a mere 47%.

Allan Horton and his people at the Curtis Paper Company have come up with their third annual "keepsake" devoted to Americana. This year's booklet "The Fundamental Creed of Abraham Lincoln" was arranged and annotated by Earl Schenck Miers. The woodcuts of Antonio Frasconi with design and presswork by Joe Blumenthal are a happy combination of talents that has resulted in a very handsome 32 pages indeed.

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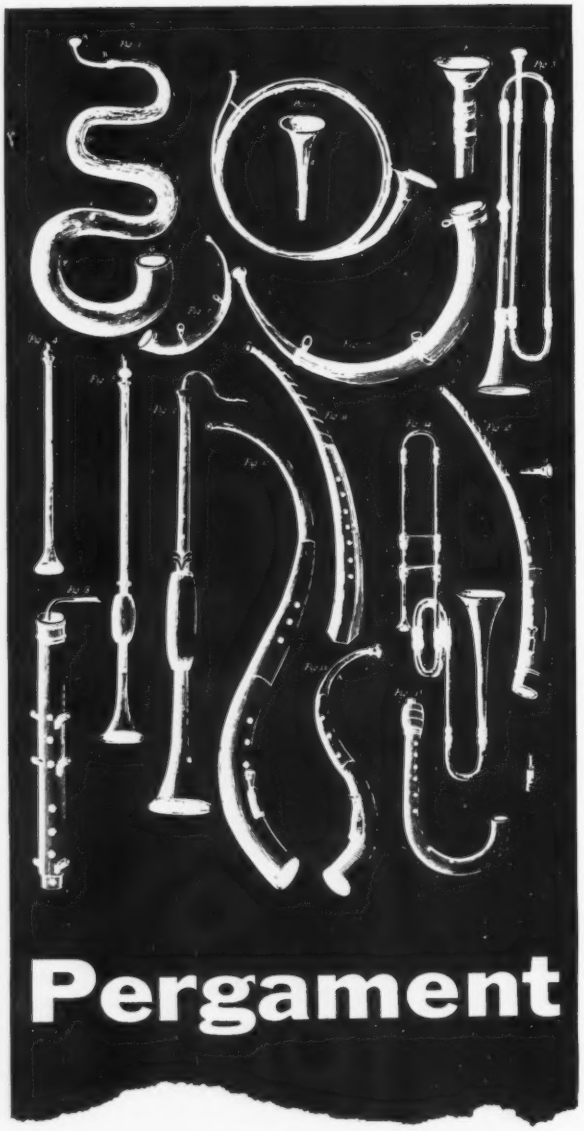

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With the 1956 Aspen Conference again devoting itself to "communications" it is interesting to look back over a document issued some months ago called "Report on the Visual Arts at Harvard University." It would also be interesting to know how it was missed, or at least not referred to by any of the Aspen speech makers.

Miss Aline Saarinen writing in the New York *Times* calls the report a "virtual Magna Carta for the visual arts."

We feel the working designer or art director would hardly quarrel with the report's basic assumption that . . . "Less and less is modern man swayed by the argument of the written word, and more and more by the photograph, the billboard, the cinema, the picture magazine and now television.

"Until both sender and receiver of the visual messages are trained in the twin arts of perception and discrimination, the educated man may hardly claim to be master of his environment."

While agreeing whole-heartedly with this thesis, we find the rest of the report disturbing. It deals with the attitude of the university toward the artist. To put it mildly, he (the artist) comes off badly. One quote may give the idea — "highly as the university esteems the work of art, it tends to take a dim view of the artist as an intellectual."

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The Editor,
Dear Sir,

Well, I must say. I can stand this Transaction typography when it produces anything as revealing and characteristic of our mid-century ethos as the CBS Radio ad. for Radio Station WAA, but when it comes to transactive proof reading I think you are going too far. Somebody ought to have told you that Granjon is the name of a Linotype face, and not the pseudonym of the Publicity Manager of the Monotype Corporation (England). My dear friend Paul Bennett must be laughing his head off at that instance of subconscious substitution.

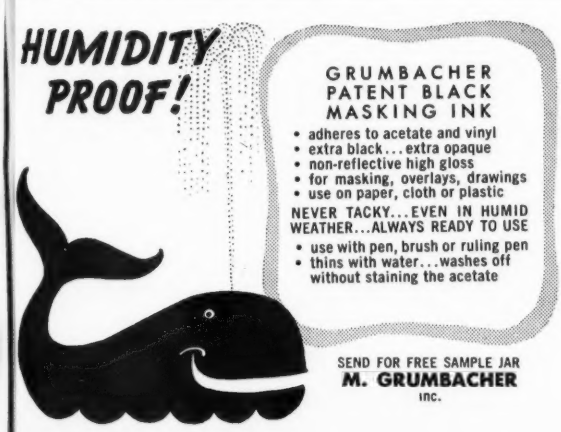
Your paragraph implies that there is something heretical in noticing that a technical innovation has been presented, for what it's worth, to the printing trade, and that one has to be "blunt" to mention it. I just don't follow that at all. The trouble with you people in the avant garde *is that you're so far out front that you've sort of got out of touch with us crusties who still cling to the old convention of verifying references. It's possible to get so frantically interested in pressing forward as to become impatient of the idea of looking back to see if the thing is really so. If you will look back to page 57 of that same number X3 of* PRINT *you'll discover how to spell the name of*

Your constant reader,
Paul Beaujon

2 College Avenue,
Epsom, Surrey, England

Dear Constant Reader:

The hot breath of the printer on our editorial neck may or may not excuse the "subconscious substitution" of Gran- for Beau-, but an apology to you, Miss Beatrice Warde is in order. We hereby proffer it and promise faithfully in the future to always check PRINT VOL. 10: 3, page 57 for the proper spelling of Paul Bojohn.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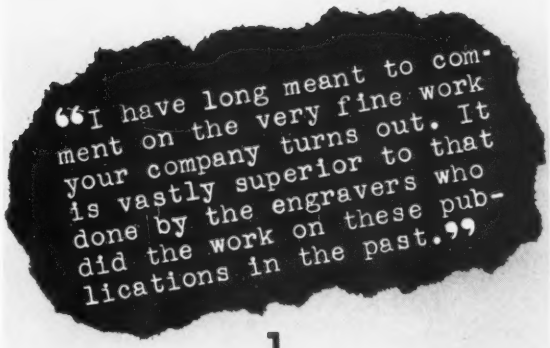
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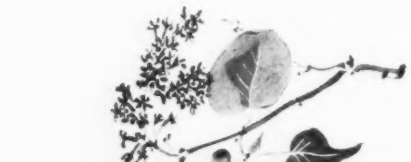
Top Drawer (Continued)

Another show—another entry—but this is a good one too. The Package Designers Council is accepting entries for its Third Annual Award competition. Deadline for designers, product manufacturers, packaging suppliers and ad agencies is November 1st. Official entry forms will be ready early in September.



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Top Drawer (Continued)

Mr. Stephen Bone, writing in England's *Manchester Guardian*, about the Alliance Graphique Internationale show held in London mentions no American designer by name. But he certainly settles some kind of a score when he says "The British and the French have an advantage in that their work consists chiefly of brightly coloured posters, whereas the American and German designers seem to work mainly for the magazines (American posters are of notoriously low quality). These magazine advertising pages are naturally less effective in all exhibitions of this kind than posters are, but this is not the only, or even the chief, reason for a certain disappointment. Americans and Germans, unlike the French and the British, seem obsessed with the cut-out photograph and the ruled line. A sort of mechanisation has descended on the advertising designers in these countries; perhaps they cannot, to use an old phrase, 'draw freehand' any more."

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21	DRAFTSMAN or ARTIST LEADS 6 to 12 leads per box		1.50	.75
22	SPEEDBALL PENS B-0 and B-1	Doz.	1.80	.90
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28	TEMPERA OR POSTER COLORS PINTS (6 asst. Col.)	pt.	1.40	.70
29	FINEST BRIGHTS WHITE BRISTLE OIL BRUSH	ser. 53 #4	1.00	.50
30	" " " " "	ser. 53 #5	1.10	.55
31	PALETTE KNIFE 3" ARTIST PAINTING		.50	.25
32	HUNT PEN ASSORT. EQUAL #'s 22B, 56, 99, 100, 103	GROSS	7.20	3.60
33	FINEST BRIGHTS WHITE BRISTLE OIL BRUSH	ser. 53 #6	1.30	.65
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43	RUSSEL FLINT WATER COLOR PAPER 72 lb. 22" x 30"	Doz.	5.40	2.70
44	BLU-VEL TRACING PADS 100% rag 9"x12"	16⅔% IN DOZ. LOTS	1.25	.63
45	" " " " " " 11"x14"		1.50	.75
46	" " " " " " 14"x17"		2.00	1.00
47	" " " " " " 19"x24"		4.00	2.00
48	WATER COLOR BLOCKS 130 lb. stock 100% rag 7"x10"		1.20	.60
49	WATER COLOR BLOCKS 130 lb. stock 100% rag 10"x14"		2.20	1.10
50	" " " 130 lb. stock 100% rag 9"x12"		1.80	.90
51	5" DIVIDERS		.45	.23
52	PALETTES (UPSON) 8" x 10"		.45	.23
53	" " 9" x 12"		.60	.30
54	" " 12" x 16"		.85	.43
55	" (MASONITE) 14" x 18"		1.25	.63
56	UPSON ART PANELS 8" x 10"		.20	.10
57	" " " 10" x 14"		.30	.15
58	KENWOOD ILL. BOARD 22" x 30" D. T.		1.25	.63
59	TIN MIXING CUPS 2" x 5/8"	100	2.50	1.25
60	#500 COLOR MIXING SLAB		.25	.13
61	#600 MIXING TRAY		.50	.25
62	EXCELLENT ROUND WHITE BRISTLE OIL BRUSH	ser. 65 # 8	1.25	.63
63	" " " " " " "	ser. 65 # 9	1.40	.70
64	" " " " " " "	ser. 65 #10	1.50	.75
65	" " " " " " "	ser. 65 #11	1.80	.90
66	" " " " " " "	ser. 65 #12	2.00	1.00

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HERB-ART

Top Drawer (Continued)

Allon T. Schoener, Curator of the Contemporary Art Center in Cincinnati in collaboration with the Family Service Association of America is arranging an exhibition of publicity material created for social service, health and government agencies throughout the world. It is planned to travel the exhibition throughout major American cities.

Any art director or graphic artist who has done work in this field is asked to submit his work. The categories are: 1: annual reports, 2: interpretive or educational pamphlets, 3: newspaper ads or feature stories, 4: posters or car cards, 5: agency magazines, 6: television props, 7: good still photos from films, 8: photographs of agency activities or other material using visual techniques. All material should be sent to:

Allon T. Schoener, Curator
The Contemporary Arts Center
Cincinnati Art Museum
Cincinnati 6, Ohio

The Smithsonian Institute has just issued an extremely handsome and informative catalogue listing their traveling exhibitions available to the public. Subjects run the gamut of the arts from American Indian Painting, Sculpture, Recent British Lithographs, Contemporary American Glass to Oriental and Children's Art. Rental fees are modest and the catalogue lists space required for showing, and often the fee includes an illustrated catalogue of the particular exhibit.

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Top Drawer (Continued)

Annemarie Pope is Chief of the Travelling Exhibition Service and she may be reached, of course, at the Smithsonian Museum, Washington.

Lately, we have been on the receiving end of a real barrage of type specimens. Three founderies, Amsterdam, Bauer and A.T.F. have new faces. The machine people, Lanston, Intertype, Merganthaler, also have something new. Now comes the Composing Room, (Leslie-Mendel, et al) with two galleys that show their recent acquisitions. All these people will gladly send samples (and we think you should see 'em) on request.

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But also vote because you believe in this democracy of ours and you want to keep it the way it is—a country where you can have your say and nobody else can say it for you.

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HENRI MATISSE 1869-1954

Although Matisse's accomplishment as a printmaker was prodigious, it was limited to comparatively short periods throughout his career. In 1914, for instance, he sought refreshment from painting in the chemistry of several print media. The three monotypes, the etched portrait of Josette Gris, the lithographs *Black Eyes* and *Nude seen from back*, are but a sampling of almost one hundred prints produced that year.

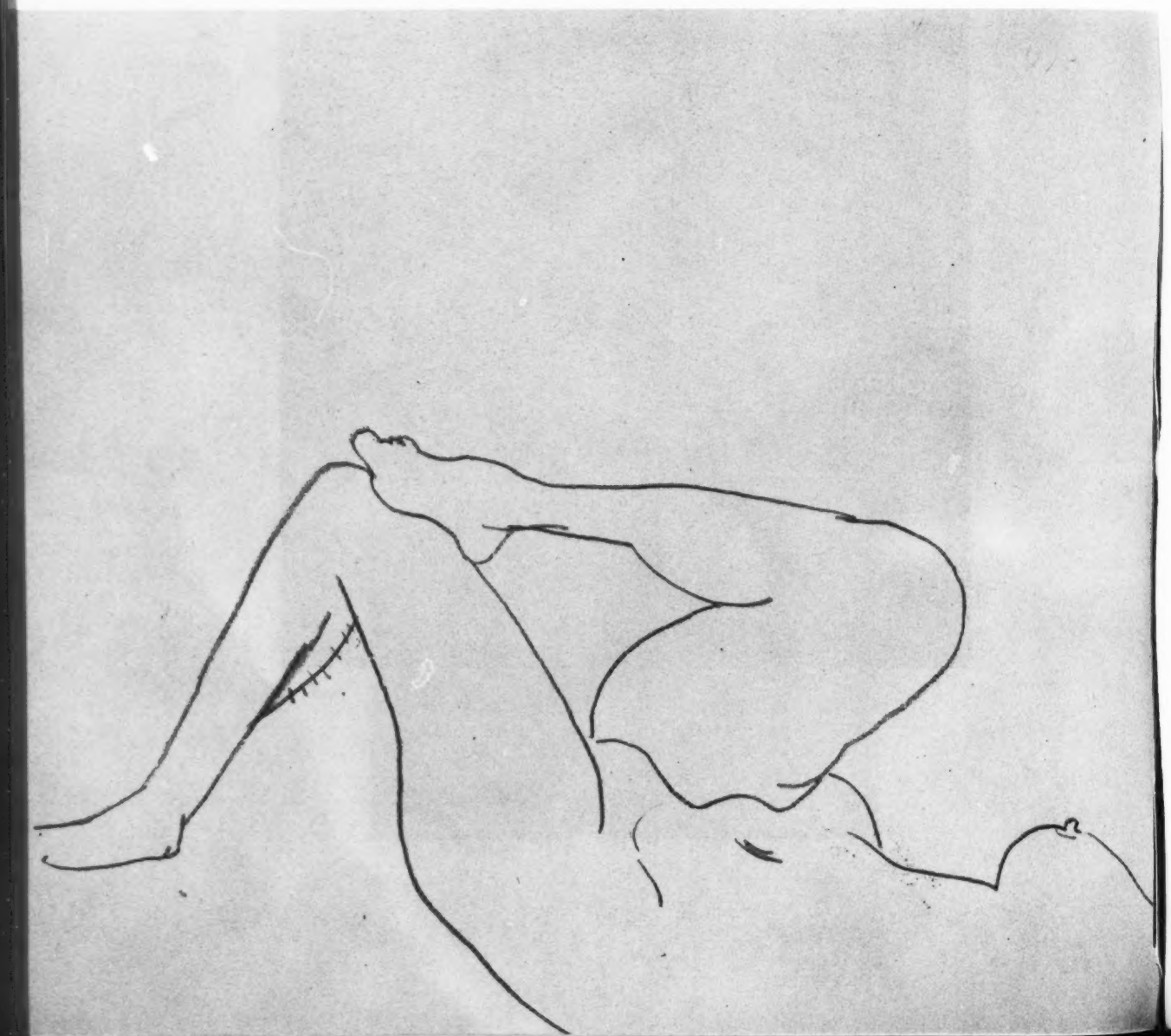
The landscape, on the next page was recently given to the Museum in memory of Mr. and Mrs. Leo Stein. It bears a dedication from the artist to Leo's sister Gertrude. Another recent acquisition, the monumental nude reproduced on page 27, has been dated 1904 by Matisse's family. The year 1907 seems probably more plausible.

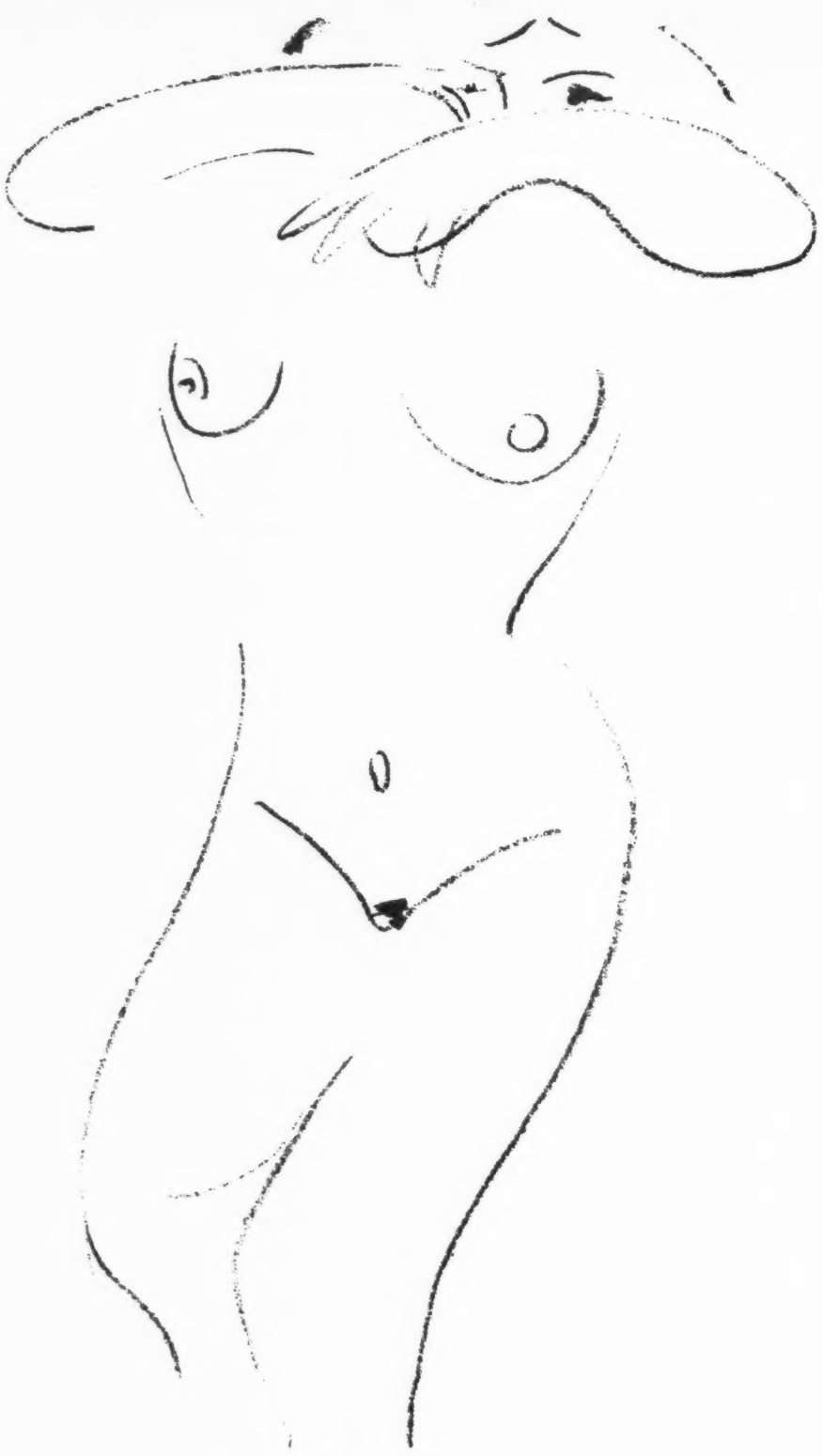
With the exception of Matisse's self portrait, the other prints belong to the decade of the '20's, the etchings specifically to 1929. In these the heavy atmosphere of the seraglio is sometimes lightened by quick and informal statements.

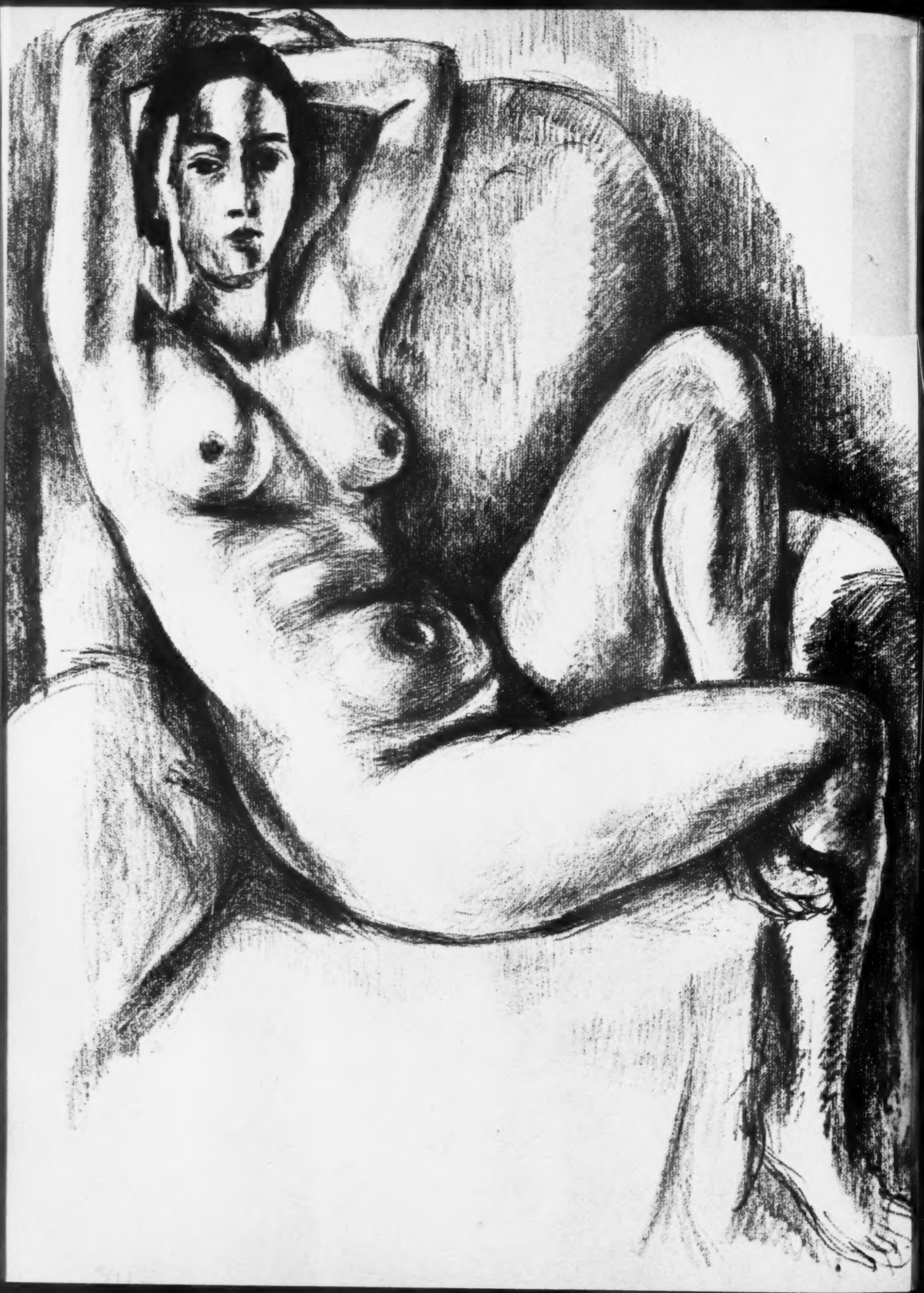
All of the prints shown here are from an exhibition of eighty prints by Matisse held at the Museum of Modern Art.

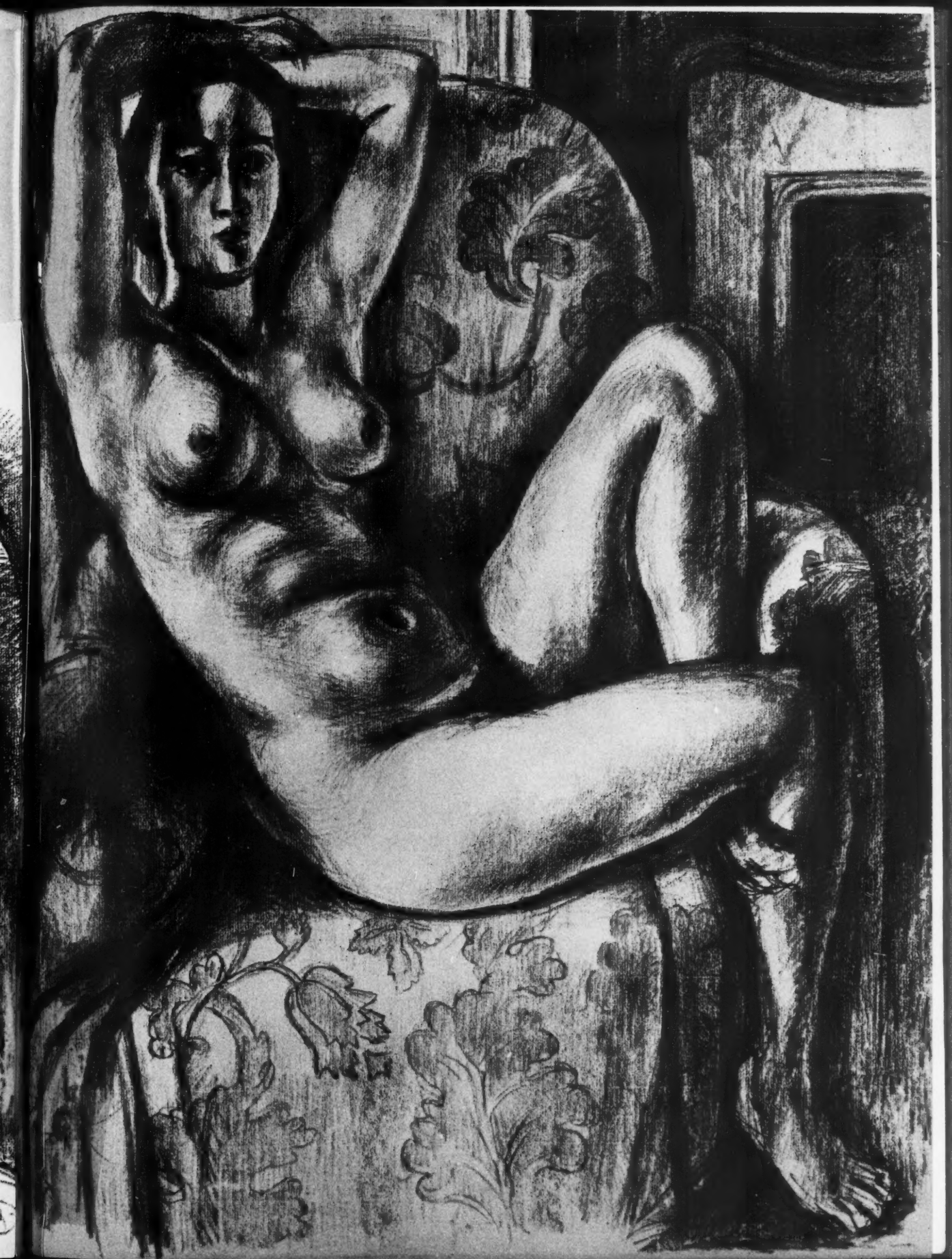
—William S. Lieberman

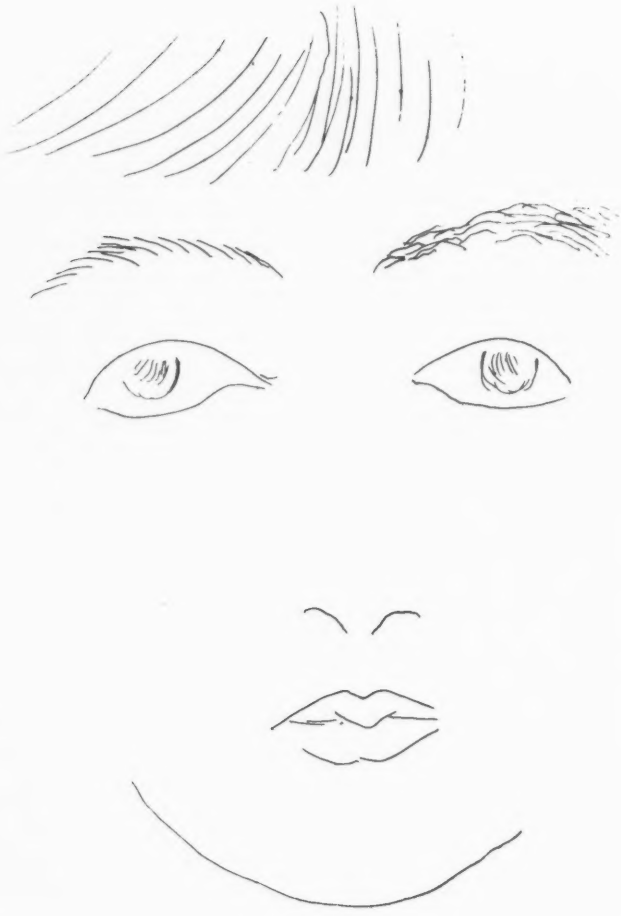
Page 17: "Apples" 1914 (?) Monotype.
Page 18: Top "Harbor at Collieurs" 1906 (?) Lithograph.
Bottom. "Head" 1914 (?) Monotype.
Page 19: "Torso, Arms Folded" 1914 Monotype.
Page 20: "Study of Legs" 1925 Lithograph. Collection of Mrs. Gertrude A. Mellon.
Page 21: "Self-Portrait" 1949 Lithograph.
Page 22: "Standing Nude with Crossed Hands" 1906 Lithograph.
Page 23: "Nude Seen from Back" 1913 Lithograph.
The Metropolitan Museum of Art.
Page 24 & 25: "Seated Nude with Raised Arms" 1924 Lithographs.
Presumed 1st and 2nd states.
Page 26: "Séraphique (Mme Juan Gris)" 1914 Drypoint.
Page 27: "Nude" 1904 (?) Lithograph.
Page 28: "Black Eyes" 1914 Lithograph.











Henri Matisse
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IDEAS ON THE FUTURE OF MAN AND DESIGN

IDC ASPEN 1956

For the second year in succession PRINT *is devoting the major portion of an issue to the speeches delivered by the many speakers from many lands at the Sixth International Design Conference; Aspen, Colorado.*

This years conference carried the working title of "Ideas on the Future of Man and Design." Chairman Will Burtin in his opening words to the 700 people in attendance said, "The absence of a question in our title implies a belief that there is a future for man, and with him a future for design. It is the purpose of this conference to weigh the ideas which may give the future a recognizable face. In pursuing this aim we realize increasingly the special importance of communications . . . the enormously complex organism which we call humanity cannot progress without them. Nor are communications restrictable to only the word or visual image as they appear in printed or moving or televised form. Every aspect of human work communicates, every building, every city, every tool and every gesture."

We believe the conference papers as presented should bear careful scrutiny by all of us in the business or profession of "communicating."

MANAGEMENT AND DESIGN

ways in which Sweden has bridged the gap

ARTHUR HALD

Born in Sweden, 1916. Editor of "Form," published by the Swedish Society of Industrial Design and public relations director of the Ceramics Factory, Gustavsberg.

By "Handcraft" I refer to production controlled by one man or a small group from start to finish. Here the creative process runs parallel to the actual making of the product. The fact that manual work is mostly involved does not preclude the use of machine tools. A handcraft product may be unique, but this is not vital to our definition; nor need the product be exclusive as regards price. Handcraft production may be concerned either with utility ware or with objects whose main purpose is esthetic.

By "Industrial Production" I refer to production based on division of labour and on the dominance of the machine tool. The commodity is given its special appearance by a designer before being produced; the object of manufacture is to reproduce the designer's model or drawings as exactly as possible. Commodities in this class always presume production in quantity and distribution to consumer markets.

Among other things, the term "Industrial Design" is concerned with the history of how the industrial form has been liberated from its dependence on handcraft forms, of how it is constantly changing as new commodity needs appear on the market and as new materials and techniques emerge. With its former role usurped by industrial production, handcraft is now either extinct or pronounced dead in most countries.

I shall tell you briefly how handcraft has found a new natural role for itself in the economy of Sweden, a highly industrialized country where the inventor-engineer occupies an unassailable position. From my words you may understand why we would feel more impoverished and more one-sided without access to the design character of handcraft. Above all, I should like to point out how handcraft stimulates Swedish industry today, and vice versa.

The most important factors that explain this interplay of handcraft and manufacturing are the very structure of Swedish production, a widespread cultural ideal that may be called "Good Design for Everybody", and a tradition which says that one-and-the-same designer works both with unique objects and with quantity production.

First we should ask, "Why does handcraft exist at all in present-day Sweden?" Well, for one thing, industrialism came late to Sweden and was slow in getting started. Another is that Sweden has only a small population settling its fairly large land area: this fact favoured a type of individual production

for the home that emphasized manual skill on a wide scale. The rather late urbanization of the country has served to perpetuate this. Given these basic conditions, the next logical step was the organization of a modern home craft movement. At the disposal of the movement is a corps of trained designers, spread out in about 40 production centres, who make up-to-date wares for the home and for general sale. The bulk of production consists of textiles, and Swedish handcraft textiles for home interiors are at least as good, if not better, than the industrial product. In terms of the national economy, of course, home craft doesn't amount to very much; but what it lacks in economic power it more than makes up as a swayer of public opinion. Homecraft has certainly made the Swedish people much more quality-conscious.

To be sure, industry in Sweden has also taken over the former role of handcraft; in its undiluted role, handcraft exists today chiefly as art handcraft. On the other hand, the borderline between handcraft and industry, and between one-man control and division of labour, is a very fluid one. This is especially true in regard to supplying the home with equipment for its interiors—an activity that has come to monopolize the best talents in Swedish design. Picture for yourselves how a man from Detroit will smile if we tell him that Sweden's "furniture industry" consists of 800 "factories," employing an average labour force of 15 men and producing for a population of seven million! Or take our glass industry, where export plays a large part; Sweden has about 40 factories making glass, almost all of them situated in the same province within a radius of 30 miles, and the largest employs a force of 350 men. By contrast, the ceramics industry is mostly concentrated in three large factories and a handful of small ones; the size of the labour force at the largest of them is around 1200. This kind of production, however, is highly dependent on manual work and part of the output represents pure handcraft. In the textile industry we have factories both large and small, whose output is supplemented by homecraft and by several important textile studios.

From a production point of view, therefore, there is no unbridgeable gap between handcraft and industry. Homecraft, handcraft and industry are all taken into account when we speak of general design policy in Sweden. The fact that I can safely use a term like "general Swedish design policy" derives from an idea factor, which I suppose could very well be discussed under the heading, "Management and Design." Virtually every event of real importance to Swedish design has been inspired or guided by one idealistic organization, Svenska Slöjdföreningen—the Swedish Society of Industrial Design. This is a common forum for producers, designers, tradesmen and consumers. The Society was founded back in the middle of the 19th century, and for the past 40 years has been striving to raise the general level of quality and taste, to create an environment that conduces to the graciousness of modern living. This the Society does by stimulating and criticizing producers, by introducing qualified designers to industry, by encouraging retailers to carry quality merchandise, and by informing consumers through the media of magazines, exhibitions, courses of instruction, and so forth. Together, the leading personalities of the Society—men of ideas and men of action, producers and spokesmen for consumers—have formulated the programme of developments that began about the time of the first World War. They have given the Society a forward cultural position and, in questions of design, are the leading shapers of opinion in Sweden. In a few words, we have fought on a nationwide scale for forty years on behalf of fine wares, whether these are produced by industry, handcraft or homecraft.

In the early days the pioneers of design were painters and sculptors. About 1917 the Society took them under its wing and secured their employment in the more important factories and workshops, where they became art directors on a permanent basis. I use the word "permanent" advisedly here, because many of them literally lived on the factory premises round the clock. Fired by the thought that their creations would reach a broad segment of the buying public, the designers tackled the problem inherent in the slogan, "Vackrare Vardagsvara" ("More beautiful things for everyday life").

However, they wouldn't have been true artists if they hadn't fallen in love with the materials they worked with. Their responsibility for quantity production also allowed room for personal creation, a never-ending experimentation with new forms for glass, clay, wood, textile and metals. This twofold interest of a pioneer generation of designers has become standing tradition in Sweden; it has been inherited with undiminished zeal by their successors, the men who are now the art directors of the most important enterprises.

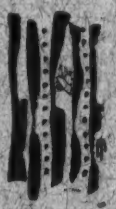
At this point many persons may interpose the objection that my examples bear relevance to only part of modern consumer needs. All that has happened is that industry has annexed what used to be the sole province of handcraft down through the ages. The interplay of one-man control and rational division of labour cannot apply, so they say, to industry that is 100-percent mechanized, where production is based on a myriad of materials, on new materials that serve new functions, on new commodities lacking a tradition of handcraft, and which is not even conceivable with handcraft methods.

The objection is true enough. But as long as the world continues to demand what we can call "unimaterial" goods, goods that can be shaped both by hand and by machine, so long will a large part of production provide facilities for an interplay of these methods. However, there exists a relationship outside this sector as well. It is then transformed from a technical-esthetic into an ideational relationship. I'm not suggesting here that the industrial designer, model United States, coop himself up in a small corner of the factory and turn out vacuum cleaners, electric shavers and bread toasters by hand. And I see no means of technical liaison between studio handcrafts as developed in America of recent years, on the one hand, and automation on the other. But I do see a realtionship of principle

between these two extreme forms. For in both cases, of course, the ultimate aim is to produce goods that have quality as their common denominator.

In my opinion, modern society must permit and nourish the existence of a high-class handcraft—an art handcraft so ruthlessly high-class that it will serve as a criterion for good design of any kind. Why? Because our finest industrial products have learned many valuable lessons from the finest handcraft: the complete integration of factors that determine form; absolute clarity in a finished, successively refined form; the requirement that a material yields its maximum possibilities of expression; and superb mastery of technique. These represent a moral that has not yet penetrated sufficiently. Because while poor handwork is regarded as fakery, and depreciated as technically and morally inferior, today's industrial product escapes the same unfavourable judgement. If a factory-made article is poor the low price charged for it becomes the usual excuse. Craftsmanship symbolizes the concept of quality in its absolute sense.

But even if, some day, industrial culture reaches the same high, self-evident level of form as the mature handcraft of a bygone day, we cannot assume that handcraft will have served its purpose and fade out of the picture. The deepest reason for hoping that our world—whether it be wonderful or fearful—will be able to balance these two methods of production is that these two idioms of form express two aspects of the human psyche: the rational and the emotional. If we approach the problem discussed here in terms of the practical and spiritual needs of man himself, the way to a solution lies not in bridging a gap but in utilizing both idioms to help build a vital milieu.



the designer and the client

MISHA BLACK

President of the Society of Industrial Artists in England, is editor of "Exhibition Design." He is consultant to the British Transport Commission for Diesel locomotive design and to the Government of Ceylon for the Colombo Plan Exhibition, 1957. Member of the Order of the British Empire.

It would be instructive for a client to be present, although invisible, when the designer whom he has commissioned sits down alone, or with his colleagues, to start work on a new project. He would be surprised by the transformation. The suave, genial designer who was so accommodating at the conference table and so sophisticated a companion at dinner, would have changed into a serious, engrossed man fanatically concerned with the job in hand.

This assumes of course that the designer has a degree of creative ability and is not merely a technician content to imitate, or only efficiently to carry out instructions. The purely executant designer has his own merits, but for the moment I wish to consider that smaller band who endeavour to bring to any design problem as much originality as does the chef who slightly varies the cookery book recipe to bring the final dish more to his personal liking.

The client, now as unnoticed as a fly on the wall, would observe three unexpected phenomena: —firstly the self-criticism of the designer as he covers sheet after sheet of paper with preliminary designs, all to be discarded for reasons which would be incomprehensible to his client; secondly the time taken in developing the finally selected basic design to a stage where drawings and specifications are completed; and lastly the fact that he, the manufacturer, influences the designer at every stage of the work to a degree that he would hardly credit and of which the designer himself is often unconscious.

In the second-class design office, where expediency controls honesty, the influence of the client is decisive. No more time is spent on the job than the minimum necessary to satisfy the client, and if the client is incapable of judging between a solution which is properly or only partially resolved, then it is the latter which he receives. This is the path of mediocrity, to the rapid deterioration of standards and, for the designer, to an insistent sense of dissatisfaction not compensated by the increasing bank balance which often results from a willingness to produce shoddy work.

When the client is unable to see the difference between a meretricious and a creative solution, the task of the honest designer is insufferably increased. The designer then knows that the acceptance of his work will depend not on rational judgment but on his own powers of persuasion, on his capacity for convincing argument which often must deliberately falsify the real reason for his decisions. In such circumstances the designer feels isolated and desperate, knowing that the entire creative energy must come from him alone, with the client as useless as an irresponsible judge. It is therefore not surprising that designers who are doomed to work for blind and dogmatic clients rarely survive the unequal battle and finish up not very different from the second-rate hacks who lack integrity from the start.

Industrial design is, by definition, creative work which depends for its materialization on its fabrication by other hands than those of the designer. An idea restricted to visualization in the mind of the designer, or carried no further than a carefully rendered drawing is as unfulfilled as a play written but never acted, or a piano concerto played on a silenced instrument.

I have yet to meet the designer satisfied or even able to work for any length of time without the stimulus of execution, or capable of development without the experience only to be gained by seeing how the drawing board design appears after production. But if a chair or refrigerator is to be manufactured, a shop or showroom constructed or a poster printed, the designer must persuade his client to invest the money necessary for the product to be made or the design otherwise carried out. Then the net is immediately closed, and the designer and client are together inextricably enmeshed.

I am not suggesting that the influence of the client is necessarily harmful. The opposite is often true. When the client and the designer are in sympathy they can together produce better work than that of which either alone would be capable. The client, particularly if he is an experienced art director, can be the encouragement and the goad, drawing out of the designer, especially if he is young and unpractised, work of a quality and maturity which he could never produce without wise, firm and experienced guidance. These are positive contributions from the client, but the more useful they are, the more considerable a part does the client play in the production of the final design.

But more often the client lags behind his designer. In such circumstances the client is a shackle dragging the designer back to the standards of the client's world. Then the designer is the anxious leader, able to see the horizon but delayed by the weight of his reluctantly dragging companion who is fearful to take even a step in the right direction.

This is the moment for the intelligent, farsighted client to claim that he does in fact give his designers complete freedom and is honoured to follow where they lead. But this is an aspiration rather than a fact. Even the most sympathetic client has his likes and dislikes, his quirks and his oddities. Always he is at the designer's elbow, always the designer is worrying, if unconsciously, how his client will react to his proposals, how far he can persuade him to go on the fateful morning when the drawings are taken from the carefully prepared portfolio and exposed for the life and death judgment.

We, the public designers, are, with the fewest honoured exceptions, the great compromisers, the second-layer men, the translators of the real creative work of our time to a more common denominator. While engaged in this not unpleasant occupation, let us not deny however that the limit of our progress is finitely determined by our clients.

First, the client and the designer must be compatible. Here the client has an unfair advantage: it is the manufacturer who chooses his designer and only exceptionally that the designer decides for whom he shall work. But this should not be a master and slave relationship. If it is, the influence of the client is too strong and his designer becomes a dim paper/scratching shadow, drawing out only that which has been instructed. Soon, under such treatment, any creative capacity which the designer may have possessed withers and dies while he turns to gardening or amateur painting to satisfy his frustrated creative energies.

If my earlier proposition is valid and if the influence of the client is as important as I believe it to be, then it follows that high standards of design can be attained only when the client and his designer are so of the same mind as to be virtually two faces which together produce the single coin.

Here lies the crux of the problem. A high design standard can only be achieved when at least one director at the top level of management really believes in design, has the visual perception to distinguish the good from the meretricious, and cares as a human being that the goods which his factory produces or the physical manifestation of the services he controls should please the senses of sight and touch while satisfying those emotions which react to efficiency and fitness for purpose.

The desire to produce good design as an end in itself is the fundamental requirement. If that does not exist somewhere along the line, then the forces of reaction or laissez-faire will so vitiate any new design project as to mock the creative energy consumed in its primary conception.

I am not in this sense talking about the slick adaptation of newly-established formulae; this is the province of any hack manager and his hired draughtsman, and they will between them manufacture and market products which will sell better than a more traditional compromise and justify the slogan that "Good design is good business." But when we look one stage ahead there is no longer the guarantee of immediate trade results to justify a real act of creation. There faith must support judgment, to produce the kind of farsighted support for design which justifies tooling up, as in a case of which I know the details, of a mass-produced cooker which sold only 1,100 in the first year and took two years of extensive selling to reach the economic 25,000 mark.

Steps as courageous and eventually as profitable as this are the outcome of the closest liaison between the designer and the top-level management of the company which employs him. They require of the designer a stature which entitles him to entry to the board room; they require of management the imagination to employ designers of great ability, to pay them salaries which their importance in the process of production and marketing justifies, and, above all, allow their designers the working conditions which enable them to remain capable of the creative endeavour which is their primary and irreplaceable contribution to industry.

To sustain the creative ability of the designer is no easy matter. The fact that the designer is prepared to work for industry means that he is predisposed to compromise, and is willing to occupy at least part of his life with problems of persuasion, diplomacy and administration. The transition from this normal division of the designer's working life to a situation in which the whole of the time of the once productive designer is occupied with talking, writing and administering is a step so easy to take as to make it the inevitable lot of all but the most resolute artist.

This is not a reason for despondency. In such circumstances the erstwhile designer himself be-

comes the client; if memories of his own travail on the drawing board have not been completely buried under the avalanche of business lunches he turns, by slow metamorphosis into the client who is the more able to draw from the younger designers on his staff that enthusiastic dedicated endeavour essential to the production of outstanding work.

When this happens the full circle is complete, the designer has become the client and his protégés no longer have to fight the soul-destroying battle of persuading the Philistine. The client/designer, on his part, may be satisfied that his task has changed to that of the educator and the elder statesman. He may take pleasure in the quality of the work produced under his direction and be secretly compensated for the drying-up of his personal creative work by the knowledge that he would not have turned from it if his own capacity as an artist had been greater or longer sustainable.

This process is the easier and more effective if the chief designer, or designer director, is on the staff of the company for which he works. Design in an industrial organization is not a question of one brilliant idea, or even a series of creative bombshells. It is the slow permeation of a visual sensitivity through every aspect of the firm's work, from the product itself to the point of sales dispenser, from the architecture of the factory to the uniform of the truck driver, from the furnishing of the chairman's office to the fittings in the operatives' wash room.

A consultant designer working from outside his client's establishment can lay down basic principles, design a series of brilliant individual products, create a house style and imbue management with the importance of the designer's potential contribution to the prosperity of that industry. But the consultant's characteristic is that he moves from one industry to another and thus through the wide field of his interest, is able to act as a top level counsellor to management. He is incapable of dealing with the day-to-day problems, major or minute, which finally determine whether a firm or an industry shall grow or atrophy. That is the task of the design director who, whether he is a designer become director, or a director with the visual sensitivity of a designer must be firmly attached to his own industry.

No business can avoid eventual disintegration unless it is aware, preferably consciously, and at the least unconsciously, of the importance of design as a living, multiplying organism within it. To hang grimly to the laurels of past success is to place one's faith in a dead body already decaying.

But, as a consultant designer myself, let me hasten to say that I consider that there is value in my services and those of my colleagues even to industries already well served (and pathetically few they still are, at least in Europe) by effective staff design offices.

The staff designer, if he is to be of maximum value to his employer, requires constant stimulation. The stimulation must come primarily from his own insatiable curiosity about form and function, which makes him examine and analyse each image, whether it be the shadow of a branch against a wall or the bulk of an aircraft standing on the tarmac, with patient intensity. To this must be added the stimulation derived from a detailed knowledge of developments in his own special industry and of the technical progress which exposes new design potentialities. For full measure he must have wide general interests which embrace the fine arts. By travel (or the second best sedentary version of travel through the illustrated magazines) he must be exposed to the bombardment of other cultures to shatter the conceit of his parochialism.

The consultant designer can be a powerful added stimulus to the staff designer. His uninhibited criticism, his bringing to one industry the experience gained from others, his ideas—sometimes the more useful for not being immediately practicable—his support for the staff designer in his negotiation to persuade other sectors of management, are sufficient to justify his existence, but his facility for infuriating the staff designer is perhaps his most valuable asset. Here he becomes the anvil off which the staff designer strikes brighter sparks of creation than from the fuller steel of his daily companions. This is true of course only for the large industrial concerns. In smaller scale industry, where the employment of the staff designers of the highest calibre is not economically justified, the engagement of a consultant is essential and he must do the best he can to fulfill both functions.

I have now posed four theses for discussion:

Firstly: That the client is always a partner in any design carried to production—and often the dominant factor.

Secondly: That only when the client and the designer are in complete sympathy can outstanding design be achieved.

Thirdly: That only a staff designer or design director can ensure that continuity of design policy which ensures sustained achievement.

Fourthly: That the consultant's chief merit in large-scale industry is to act as a catalyst within the industry and a stimulant to the design office.

If we accept for the moment that these theorems have been proven and that the client, staff designer and consultant are working in productive harmony, then it is apposite to consider what they are trying to achieve.

If this were a conference of business men I would say 'Increased sales' and leave it at that. But, while we naturally admit that the rising sales graph registers the air which allows us to breathe and work, there still remain the less tangible aspects of industrial design which—I may whisper in this fraternity of my colleagues—are to me at least as important as the balance sheet of my employers.

In an early book of criticism, T. S. Eliot wrote that we ". . . must be quite aware of the obvious fact that art never improves but that the material of art is never quite the same." That I would unequivocally support. The diesel/powered liner is no visual improvement on the sailing vessel of the 18th Century, the plastic/topped steel desk does not better the Chippendale writing table. The new

objects are not necessarily inferior to their antecedents but they are certainly not visually more important.

If we admit this we need not be scourged by the need to improve on our progenitors, but we do need to worry about what we shall today materialize from the unchanging matrix of art.

In Great Britain there is a new growing interest in industrial design—an appreciation sufficient to have engendered Governmental financial support for the opening of the Design Centre in London and to fill the popular magazines with comment about it. But as victory approaches in the primary battle for a more general visual awareness the critics are challenging the justification for designers, as we know them to exist at all.

The basis of the challenge is that design, if it is a conscious activity, necessarily reflects the personality and the cultural values of the manufacturer who commissions the design and his designers who conceive it. If the manufacturer and the designer are resolute they will inevitably try to persuade the public to like those things which they themselves admire. Lacking confidence in the competence of manufacturers or designers to lead, the critics counsel that the public should be left alone and uninfluenced. They comfort themselves with the contention that form inevitably follows function: they argue that the only way for a designer to work is as a technician, exploring the problems of mechanics or aerodynamics or, when the object to be made is static, of production.

From what I have said it is clear that I am not uncritical of most of the things we now produce. My argument for the encouragement of the staff designer who is closely allied to the detailed problems of production reveals my own fear of the influence of those designers who are concerned only with the stamping of every product with the same fashionable style.

Those who would sweep all that is consciously designed today, who see beauty only in the arbitrarily produced object, or in the aeroplane and the radio mast where the rigid discipline of mathematics forces the engineer to adopt solutions which leave little room for creative manoeuvre, those critics have lost their historical sense and, in preaching that function alone must develop form have forgotten those great periods of the arts when the designer felt as free to carve a chair or decorate the walls of a room with moulded plaster, as some of us now do in designing the body of a motor car, knowing full well that an infinity of other solutions remain and that none are finitely determined by the function of the concealed engine which powers our automobile.

Daily the appearance designer is becoming more separated from the engineer and not more closely integrated with him. Even in the Olivetti works the casings of the typewriters and accounting machines are designed by artists who are in no way concerned with the mechanism of the equipment.

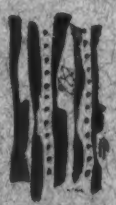
I know that this is only part of the problem, that in other industries the function can still control or at least substantially influence the form, but this is only partially true of the motor car and the tea cup, it is not true of the carpet or the refrigerator, of the diesel locomotive or of a thousand other objects where scientific progress has so freed the designer that he can now model the external forms with the indiscretion of a sculptor.

The tempering discipline of an earlier decade when the engineer, the production expert and the designer responsible for the outward shape of a product should ideally have been so integrated as to be virtually one person, is cracking apart. Clearly the designer today must still appreciate the restrictions and potentialities of production, and it may be that eventually the engineer and the mould-maker will themselves be able, without conscious effort, to produce the shapes which express in some as yet unknown way the object which they are producing. But in the meanwhile the gap widens, the engineer cares even less for appearance and the designer and his client breathe the heady air of aesthetic freedom.

This is a dangerous situation. It calls for clients who are sufficiently aware of the problem to consult those who will advise them with honesty and sincerity. It calls for designers who are trained to the capacity which allows them to produce forms and colours and decoration which are no longer just a cleaning up of the production engineer's failings, but are a free expression of our age.

If the designer is now so free, if the machines can produce almost anything which he conceives, then he is still more dependent on the client who has the understanding and the courage to allow him to be the sensitive antennae of our civilization, or at least the bridge between the artist and the public.

So we have a fifth theorem for discussion. That the gap between the engineer and the industrial designer is widening, that the designer concerned with external appearances is becoming more free. If that is true it underlines my earlier proposition that the face of our physical environment now depends on the emergence of clients able to partner their designers with the inspired judgment of a Prince of the Italian Renaissance.



GORDON LIPPINCOTT

American, born in 1909. M.S. in Engineering from Columbia University. With Walter Margulies, has engaged in every phase of design—hotel planning to packaging. They were responsible for creating "livable interiors" for the first atom sub "Nautilus."

One of the axioms of American business today is that "you can't argue with success." It is quite apparent from the design point of view that the prevalence of this feeling has created something of a dilemma for American management. The smaller manufacturer tends to take its lead on product design from the larger ones. The larger firms adopt successful design features from each other, often forgetting that the success of the leader in the field comes from his willingness to be daring, different, and fresh.

The result is the paradox of a vital, highly competitive American market in which, in many instances, one company's wares are nearly indistinguishable from another's. It becomes even more paradoxical when we realize that to market a "me too" product is more expensive than to market one which is really individual.

Please let me emphasize that I feel much American design is good. Indeed it is very good, exciting and promising. Our apparent mediocrity seems to lie in the areas of highest mass production, where competition is most intense and where advertising and marketing budgets are the highest. Why, for example, do the electric irons, the TV sets, the washing machines now on the market look so much alike? I believe there are several broad reasons stemming from the relationship between management and the designer.

1) Management makes long-range plans in many areas of corporate activity, but seldom for design. Too many products are styled under pressure to meet an immediate market with no thought given to long-range continuity.

2) The yearly model is a trap that is so easy to fall into. It suggests to the public that this year's model is superior to last year's and is styled with the "new look." In practice, I think most creative designers and engineers would agree that it is simply not possible to find a "new and revolutionary" design every year or so. Even if it were, the tooling and parts inventory problem would be staggering.

In many product lines, the result is a "new look by gimmick." The 1957 refrigerator is actually the 1955 model with a new handle and rearranged chrome. So what? The unfortunate thing about "gimmick to styling" is that the manufacturer loses brand identity (which dilutes the effectiveness of his advertising budget) and the consumer gets a poor design of which he will tire in a short time.

3) Management has, broadly speaking, not yet learned how to manage creative people in design. Despite the key role of design in today's market, we seldom encounter a designer in top management. Very few designers are given enough executive rank to implement design policy or to assure effective design results. Thus, rather than having a design-oriented management, we deal in the main with management-oriented designs.

Management, in general, is scarcely aware of the changed perspectives of today's industrial designer. Those of us who design mass production goods are concerned primarily with marketing. We have begun to realize that selling a mass market is an exceedingly complex activity. The designer today takes advantage of the assistance of sound market research. We understand that consumer taste is highly volatile. We are designing for an ever-changing market. In a sense, we are trying to hit a moving target. To do this, we must anticipate the speed and direction of trends. It seems unlikely that market research will ever be more than an indication, subject to analysis by an experienced team. A good designer is sensitive to trends. This is possibly the most important responsibility of a design executive at the management level.

The very changes in our economy and market are demanding, I believe, that designers must take an increasingly important place in today's management. Let me outline these changes briefly, as I see them.

1) For one thing, we are in what has been called a marketing revolution today. *Fortune Magazine's* analysis last year showed that the buying public has more money and more leisure time in which to spend it. Our rapidly growing shopping centers in the suburbs indicate a retailing revolution. Self-service and self-selection of merchandise, increased shopping speeds (people make buy decisions faster because they buy more), the trend toward higher-priced, better quality merchandise—all this is putting a premium on good design. Each year design is playing a more powerful role in influencing buyer decision.

2) A second change is the rapidly improving taste of the consumer. It is quite possible that the consumer's willingness to select good design is considerably ahead of the products available in many lines.

3) The importance of brand names is increasing. Products are so complex today that the consumer tends to rely on a brand name as an endorsement of quality. This trend will certainly continue. The number of new products and new brands is staggering. We seem to be approaching "saturation" in the consumer's ability to remember brand names each year. The average consumer brand name vocabulary (brands he can identify) is about 1,180. The cost of marketing an existing brand, or promoting a new brand, is increasing each year as the competition for identification increases.

4) Scientists tell us that there has been amazing breakthrough in communications—the fundamental

knowledge of communicating from man to man, from man to machine, from machine to machine, and from machine back to man. Automation and its promising aspects of plenty would not be possible without this communication breakthrough.

Scientists also tell us that when a major advance in man's knowledge occurs it makes deep and rapid changes in many fields of activity. The designer is in a key spot in this communications breakthrough, since design is a visual form of communication. We are not only making communication progress on the electronic front but also on the human behavior front. We are learning new things about human motivation that artist and designer have instinctively felt in the past, but that can now be more tangibly delineated. This communications research will be helpful in evaluating how people will "see" and react to a new design.

Marketing as we know it today would not be possible without IBM machines and other communications tools. But on the whole our present methods of marketing are based on past communications methods. The breakthrough has just begun to make itself felt at the marketing level. It is safe to forecast profound changes in the next ten years, and the designer can play a fundamental role if he is aware of the broad aspects of the communications advance.

For example, just consider this picture. The consumer is sitting in her home before a special closed circuit television set. She has decided to go shopping. She picks up a phone attached to the side of the set and dials information and says, "I'd like to see some electric mixers." She turns on her set and there flashes before her the names of sixteen different brands of electric mixers, and a brief shot of each. She decides she likes Westinghouse and Sunbeam brands, and again she picks up the telephone and dials Westinghouse and asks to see their film on mixers. On her set she sees immediately an eight minute color film on the Westinghouse mixer, the way it is used, the product advantages, etc. She then gets the same information from Sunbeam. With both brands there exists a range of choice as to color, attachments and other optional features. All this has been sent to her prerecorded on tape in a fully automatic manner. This is just one of many thousands of inquiries that could be answered on film from coast to coast by one company alone. Suppose she then decides on the Westinghouse brand. She picks up the phone again and orders. Her order, with its choice of color, attachments, etc., is simultaneously transmitted to the procurement and assembly line. The mixer is manufactured to fill her order and shipped by air transport to Mrs. Consumer who receives her order within twenty-four hours. Her purchase order is automatically sent to her bank where the amount is deducted from her bank account, or, if she wishes to pay on the installment plan, $1.00 is added to her monthly bill.

The entire process is automatically controlled by self-regulating machines. Perhaps the most interesting aspect of this imaginary scene is that the mechanics for every step in this shopping operation are in existence today. Manufacturers could produce to order within a matter of hours thus eliminating the need for inventories of finished goods, warehousing, jobbing, wholesaling and retailing.

My point is that ideas for new distribution techniques also make necessary an entirely new approach on the part of the designer to his profession. For example, many have felt that automation might restrict the opportunities for design expression; actually quite the contrary, as we have seen from this previous possible example. Without the inventory problem, we could create an infinite number of style variations on the basic design, putting them into actual production only as the orders came in. Also with this direct consumer-factory shopping over TV it would be much easier to send up "trial balloons" in design, because there would be no large stock losses should the trial balloons fail to find large acceptance. And finally, there will be a far greater premium in design; because of the very nature of this new shopping experience buyers will have to rely on the visual sense alone.

This, then, is our frame of reference. We stand at the threshold of a great marketing revolution, sparked by major advances in the science of communications. The sound management of design will be increasingly important in the immediate future, since design is a key sales influence and marketing costs are becoming so great that it is increasingly hazardous to have less than the best.

How then can management plan for good design? This is a question which obviously cannot be answered in detail—every corporation, like every human being, is a unique entity. But I believe there are some overall principles around which management can make its own individual plans. Possibly the most important principle is a creative climate. Some corporations have creative management; they are seeking new products, new markets. They have a climate where new ideas are welcome and have procedures for evaluating new ideas. It is hard to imagine a stodgy, unimaginative management with an outstandingly creative design group. In short, the management group itself must be creative to provide a climate where design can grow with best results.

Second, I believe that no designer can work effectively without a goal and without clearly defined responsibility. This is not a question of design but rather an element of good management. It has been my experience that design objectives are not sufficiently thought through and specified in writing. Design responsibility is too often in the hands of people who are not designers.

You might ask, do we want to make the best typewriters that can be made, or the lowest priced? What kind of a company do we want to be? Do we want to expand into new areas? Is our present field limited? From this kind of thinking emerges the kind of company management wants to build. Once we know this, we might ask: does our present product line, our present trademark, packaging, letterheads, shipping labels, showrooms, catalogues,

advertising—do all the means by which we communicate visually to the public—express these long range goals we have just defined? How can we make this true? The beginnings of a five or ten year design plan clearly emerge.

I hope that you will agree that the first step in the effective management of design is for management to define the short and long range objectives of the corporation, I also hope that it is clear that to answer these questions fully: to put them in the form of company policy, requires that someone who is sensitive to design trends be at top levels of management.

This brings up the next question: how do you fit design into the structure of a large corporation? Design is so intangible that in many cases, management finds it difficult to know how to measure results, to be sure it is getting the best in design. The question of where design should be in the corporate structure is not as important, it seems to me, as finding talented design leadership at management level. A talented design executive will know how to build an effective design group, how to direct its activities, how to work with consultant industrial designers, and also, because he is at the management level, he will be able to coordinate design effectively with other areas such as engineering, sales, market research and advertising.

Let us consider the ways in which design is unique in today's corporation:

1) There is the matter of point of view in arriving at a design decision. Every person involved in a design conference cannot help but view a proposed new package or product in the light of his own personal experience. He cannot see the product the way the consumer sees it; he cannot be wholly objective. To know how the consumer will react to the new design is an acquired skill of a high order. Keeping personal likes and dislikes out of a design conference is very difficult, if not impossible. All too often the most dynamic member of a committee will change the design to suit his personal taste. He may do this unconsciously, thinking he knows the market taste.

2) Despite the intangible nature of design, it must also be practical. It must be produced, usually within a budget forecast and within a time schedule. Yet, despite the pressures of production plans and deadlines, you can't turn on creativity like a faucet, metering it out to a schedule. Creative ideas are hard to meter, hard to regiment. If you have built a good design team—and this takes years—and have given it well-thought-out targets and clear responsibility, you will get optimum results. Good management presumes you are not always at "general quarters" fighting deadlines. (If you are, you had better make some long range plans.)

Pressure usually produces "gimmick styling." Longer range thinking produces design that is so good that it has staying qualities.

3) Then there is the problem of arriving at a solution with the help of and despite many people at many levels. Product or package appearance changes involve many divisions of the corporation at many levels within each division. Because a design must be researched, engineered, tooled, advertised and sold, and because each of these divisions has limitations and requirements that influence the design, the problem of fixing upon a final solution is highly complex.

In fact, I sometimes feel that top management may not realize the complexity of the communication aspect of design development. Let me give you an example: we were designing a package for a large manufacturer of a nationally advertised product last year. We charted the lines of communication between our staff and the client's staff. Also involved were the advertising agency, the market research consultant, the package testing consultant and the package supplier. We found we had three levels of communication in simultaneous operation. First there was the *top management* level, the president of the manufacturing company to the president of the design consultant firm, to president of agency, to president of research consultant, etc.

The second level was *middle management:* project manager at client, to package department head at design consultant, to account director at agency, etc.

The third level was the *operations* level: assistant project manager of the client, to account design director of the consultant, to assistant account manager at agency, to chief engineer at supplier, etc.

We found that at the first level, four people were communicating; at the second level, seventeen were communicating, and at the third level, one hundred and forty were communicating. And there was plenty of vertical communication from one level to another, as well as horizontal communication within levels. The lines of possible communication drawn on a chart rapidly assumed the appearance of a maze. There were 25,760 possible combinations between individuals who could communicate. Between various groupings, the possible combinations were astronomical, well into the billions. We never kept track of actual communications, but if we had, I am sure it would have indicated an incredibly complex matrix of associations among many people of various talents and responsibilities, extended over many months.

I feel sure that in our own company, communication requires as much time as creative design. I do not say this is necessarily bad. Large corporations are a team operation and designers must develop the skills to work within this format. I do feel, however, that top management needs to recognize that every new design becomes a matter of communication between many peoples, demanding overall programming at the high management levels, to be sure that the final design is not compromised to mediocrity, or driven out into "left field" by some dominating personality.

In short, the design function cuts across many lines of authority in the average corporation.

It has been my experience that it is not wise to force people into accepting a design. It is better to guide and persuade them. Since this persuasion must reach top management levels, it must be done by someone with leadership qualities, whom

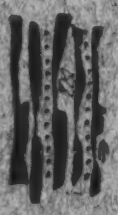
management respects and has confidence in. Men of this calibre are hard to find. It would be probably wise to plan a long range design-executive training program to develop such personnel within the company itself.

Let us consider for a moment this question of a design staff. Are designers different from others? One of the ways this question is often put is "Can you ask a genius to punch a time clock?" It has been my observation over the years that the most creative and talented designers are also the easiest to get along with, and the most efficient. Despite the old belief—shared by some of the artists themselves—that artists are long-haired esthetes who require handling with kid gloves so they will not explode and quit, I believe this is largely a myth. Designers are motivated by the same desires as other creative people—they want the opportunity to create, they want a fair evaluation of their ideas, they want some recognition and reward.

There is, however, one area in which creative designers need some special consideration. Creativity, I believe, requires continual challenge and variety, and the designer can lose his creativeness if he works on one special project too long. He needs a change in assignment, a fresh point of view. He must occasionally get away from his environment to evaluate what he has done. He needs the stimulation of the creative arts in the world outside his job. His ability to design creatively for you is dependent on his sensitivity and awareness of the world around him. It is obvious that you cannot coop him up in a cell and expect him to be original and fresh indefinitely.

Designers who are treated like draftsmen will become draftsmen unless they have the initiative to quit or to fight for their necessary prerogatives. In this sense, perhaps designers are different, but actually doesn't creative management also grow through travel, through attending executive training courses, conventions and other exposure to outside influences? Have I really suggested anything unusual when I ask that you send your designer to New York, or Europe, or Japan, once in awhile for a visual rest and a fresh point of view?

So, to sum up, management and designers, if they can find a way through the tangle of problems, can arrive at design ideas that will be far more satisfying through careful organization and greater understanding. The factors that tend to rob design ideas of freshness and clarity can be kept to a minimum. With a new conception of the place of design in marketing, and a dynamic, forward-looking approach to the new ways of living, management and designer, together, can enter a new design era.



design problems for japan housing

SABURO ASABA

Born in 1906. A graduate of the Architecture College of the Tokyo Imperial University, he is now Chief of the Architecture Section of the Ministry of Construction.

To begin, I will trace the outlines of ancient Japanese architecture. Japanese culture from times immemorial is highly indebted to China and Korea. Under the strong influences of these neighbors, large scale capitals were constructed at Kyoto and Nara during the seventh and eighth centuries. Lords of the succeeding feudal age built their own castles. The castle Edo, which is the present Imperial Palace in Tokyo is a typical one. During this period the tea ceremony was in great vogue among the samuai class, with the result that the building of tea-arbors increased. The style of tea-ceremony rooms exerts its influence upon the high-class dwelling houses of today.

In mid-19th century European culture streamed into this country to mingle with the traditional culture of Japanese. With the development of modern industries, the urbanization has taken place as in many other countries in Europe, but the style of common dwelling houses has not undergone any visible metamorphosis. The swarming of inadequately constructed houses often led to extensive calamities.

Heavy damages by the World War II resulted in an acute shortage of dwellings. In spite of strenuous construction efforts during past ten years, still about 3 million houses are short at present.

The Japanese Government, with a view to allaying the housing shortage, defrays subsidies to local governments and public organizations to construct dwelling houses. The State extends financial help to the public to build houses of their own through the Housing Loan Corporation.

In another effort to speed up house building, the government set up the Japan Housing Corporation in 1955, and embarked upon the construction of 20,000 dwelling units. The corporation's funds are supplied partly by the government, local and public bodies, and partly by loans from money market.

Many apartment houses now under construction in cities, are three or four storied earthquake- and fire-proof buildings. Very high earthquake-proof buildings cost expensive. So, there are many office buildings over 8 stories, but not in dwelling apartment houses.

In regard to the interior of the room, wooden floors and dining-kitchens are increasing, but generally speaking, there is not much change from traditional common dwellings. In other words, inside the frame of a modern building are rooms of traditional style. Such architecture lacks harmony between interior and exterior, but it seems to be a transitional one.

The summer in Japan is hard to live. Man as well as animals struggle through the damp heat

where everything one touches seems to sweat. An occasional breeze, which passes by shaking the green leaves, is the only refreshing element.

Japanese houses are so designed as to take as much of this breeze in, no matter how gentle it may be, from the full opening faced to the garden. Furthermore in order to allow the breeze to pass throughout the house, all partitions are taken down to make the entire house one room. What is more, to feel the coolness by visual sense, hot colors are avoided and Sudare, split bamboo curtains, Uchiwa, and Japanese fans, with cooling colors take their place.

Thanks to the progress of modern science, thick walls are not necessary any more to protect a house from the nature. The structural engineering has advanced to allow the slender frame construction. We are now enjoying the summer without suffering in the winter.

When Tokugawa era (1603–1867) came, the architectural construction was increased by feudal lords and the well-off class produced by the development in commerce and industry. The rich resources in lumber, the variety in species ranging from acerose to latifoliate trees made the delicate choice of lumber for use possible and completed the purely architectural beauty which Bruno Taut found in Katsura Detached Palace. By Tokugawa era Tatami (rice straw mats covered with woven rush) was made available to the people's house and Fusuma (Sliding Screen) and Shoji as fittings became common use. In the progress of architectural technics Kiwari-ho (Modular Coordination based on columns size) became to be observed. This is an important clue to study Japanese houses.

Until then Tatami had been used as movable carpet. When Tatami was laid to cover the entire floor of a room, its size was standardized. Thus the floor area of rooms was limited to certain numbers of kind according to the numbers of Tatami laid which not only specify the size but also the shape of a room. Uchinori-Dake (Height of fittings) was made fixed, not to speak of ceiling height, sizes of column and beam, even the size of finished wood works was decided by Kiwari-ho according to the size of room and structure. This was a complete form of modular coordination and forebears in prefabrication. This must be taken up seriously and explored more deeply.

In one of the major lineages of Japanese house, we trace back to the raised floor house, of which the Ise Shrine is most typical, and it developed to Shinden-Zukuri and further to Shoin-Zukuri, the one like architect Junzo Yoshimura designed for the Museum of Modern Art. The second lineage had its origin in the vertical pit dwelling and developed to Japanese farm house. The former were houses for aristocrats and upper class and the latter for the people. Both lineages could be traced back independently, but after Japanese housing style of "Shoin-Zukuri" was completed in modern times, this style was gradually taken into the houses of wealthy farmers or houses of merchants whose economical potentiality was increased in recent ages. Characteristic features of Japanese houses such as Tatami, Fusuma, Shoji and openess became popular only recently. In houses of merchants they dared not take in Shoin-Zukuri, being in awe of feudal lords. Genkan (Entrance Hall) and Tsuke-Shoin (Reading Corner) were prohibited to the people.

Gradually chairs were adapted at primary schools and military barracks, and then spread to offices. Thus Japanese living became a completely double phased one. The chairs adapted here first were primarily for office use and not for the home. The idea of "chairs while working" developed to "chairs for working" and left all the rest of rooms other than drawing room of a modern house of eclecticism to be covered with Tatami. This modern house was very popular among the middle class until World War II.

The termination of the war left us with a housing shortage of 4,000,000 units. Facing this tremendous demand Jutaku Eidan and local governments built many emergency houses. By 1946 there was a new development in housing policy. Housing construction was to be mainly handled by local government as nationally subsidized rent housing. This policy was to subsidize half the cost of houses for the people by the Ministry of Construction. The first post-war, reinforced-concrete apartment house was at last built in 1949. In 1950 Jutaku Kinyu Koko (The Housing Loan Corporation) was established as a nationally aided housing loan agency. In order to expedite housing construction, definite action was taken and by 1955 Japan Housing Organization was organized in addition to the aforementioned agencies, to bear a major portion of house supply. Its function is to develop and build large groups of fire-proof apartment houses.

In spite of this there still are 3,000,000 houses short in 1955. The total number of houses built under public programs such as government aid, The Housing Loan Corporation and The Japan Housing Corporation was only 170,000 against the grand total of 420,000 including privately financed houses.

We have to build houses for the people who are not well-to-do. Therefore the rent must be low. Our average national income per person per year is only $100.00 against $1,453.00 in America, $773.00 in England and $320.00 in West Germany. 80% of our families live on an annual income of under $600.00. As a result a decent apartment house in the European sense is far beyond our reach. We must start our housing construction based on the severe conditions of reality.

We had the best chance to replan our cities when they were burnt down by the war. However we have been reconstructing the same old cities full of low wood houses. At present we can not afford to provide houses of many sizes according to the size of a family as in other countries. Our present aim is to build as many houses as possible to ease this severe shortage.

It seems to me that our assignment could be summarized as follows:

1. Mass-supply of low cost houses for the people.
2. How to design such small houses to provide a decent living.

3. Replanning and reorganizing our cities.

The minimum requirement of the dwelling is the space where two basic functions of living and a space to sleep and eat, are achieved. Usually these two functions take place in separate rooms, no matter how small houses are. Therefore our planning was to provide separate space for this.

This meant an entirely new attitude in planning for we Japanese, because this separation of space for eating and sleeping was not generally and clearly recognized as it was in European countries, due to the fact that we could eat and sleep in the same space on Tatami cover. This fact was confirmed through a survey and it provided us with a clue to start our planning.

Our next step was to confirm that even in such minimum space the separation of sleeping was possible. Although this was a matter of fact in European countries, this had to be established as a new attitude in Japan.

Should the sleeping be separated, it must be considered according to the age and sex of the members of the family. So the houses of larger size must be prepared for the families of larger size.

The eating naturally has its center in the kitchen. The part of bedrooms adjacent to the kitchen serves as dining corner as well as for relaxation. A typical plan consists of two bedrooms and a working kitchen. When such a house is actually built, we notice that the space allocated for the dining is used up with the sleeping and the dining space is driven out and squeezed into the kitchen, because all members of a family do not follow the same time schedule.

As a fundamental problem for the Corporation housing, we have taken up the idea of dining-kitchen, which is a kitchen large enough to dine, to meet this realistic requirement. In actual examples the supper which is to be enjoyed by all members of a family comes to be taken in the next 6-jo bedroom. It is merely to provide a minimum dining space when all multi-purpose room with Tatami cover is used as a bedroom.

As for bedrooms, five persons can sleep there if we do not separate the different sexes. The small bedroom on the north side would be used by a couple, while in the daytime this room might be used as a drawing room. We have used as much Fusuma as possible in order to secure the flexibility of this kind. Thus we have obtained the flexibility at the sacrifice of basic requirement of privacy. This fact makes us feel often irresponsible. For the family with grown up and/or old people this requirement of privacy is still large. The trouble is that not only the function of a space is fixed but also the partitions remain almost to be mental ones. While some architects insist that in designing apartment houses each room should be divided more definitely by solid partitions, we are building our houses based on the flexibility. There are two reasons for that. One is that space given us is so small that we have to use it as a multi-purpose space. The other is that it is the way Japanese people live now.

The next problem we come to face is how to utilize reinforced-concrete framework for our houses. As our plans are based on Tatami and Fusuma, naturally our houses are based on 3 feet module. If a house is to be built in wood construction, we have accomplished traditional technics very handy. However if we come to utilize reinforced-concrete framework for it, there occurs an inconsistency due to the different background technics. The reinforced-concrete framework has its own requirement rationality. The most economical framework must be the most orderly worked out framework. To plan our wood work completed in wood construction module in this framework reminds me more or less of the contradiction where the blacksmiths' handwork follows the modern automobile industry.

The first compromise was to make use of the bearing wall construction to make it subordinate to the requirement of wood construction. After the war since apartment houses were started to build, the calculation method of bearing wall construction was established by the Architectural Institute of Japan and practical structure was made available to us.

However, for future use, we should like to look for another possibility. This is to find a new greatest common measure which is aliquot to both rational requirement of reinforced-concrete framework and our plans in 3 feet module.

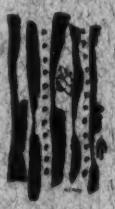
Now we are facing with the necessity of reducing the price of rationalizing our housing production. Taking advantage of our living customs, we have achieved something in supplying the smallest house of the world which is still livable. But the floor area should be increased as to meet the requirement of rational living standard. In this meaning accomplishment of low cost should be seriously considered.

Of course this must be accomplished during the production process at the construction site. Especially in our case, this again must be accomplished in the possibility of a large scale order and mass production, which comes along with it. The problem to be taken up at large is how to place the industrial production system in the architectural construction process.

Here we come to face with several difficult problems. Firstly our construction still depends much on tradesmen's labor. Our labor is cheap from international viewpoint. Japanese carpenter's wage is only Yen 650.00 on an average. In other words we owe our low construction cost solely to our cheap labor. Since the industrial production is to cut the manpower down by using machine power, there is not much space left in our case. In industrial production a certain level of precision is required, while handwork is done cheaply without being called for precision, there is not much space left for competition again. Our Tatami and Fusuma, being the handcraft products, too do not match the precision of industrial products. At present moment they are causing no trouble to our construction, but if we proceed to more industrialized stage there will be many troubles rising.

No matter how difficult our problem may be, it does not mean that we are allowed to be resigned to our present situation. Through accomplishment of our mission of constructing a large quantity of low cost houses in groups, we hope to be of use in the modernization of Japanese production. In order to be so we are making wide-ranged efforts in appealing to our industrial enterprisers to produce kitchen equipment and window sashes industrially, by standardizing their details, and also in experimenting with model houses to rationalize the working process at the construction site.

I have described quite lengthily how difficult our conditions are, only because I have wanted to say that we must think at our field. Japan in all has been and is going forward toward the direction of industrialization. Keeping pace with it our housing design and construction method will be oriented more toward industrialization. We should like to have suggestions in this line from western countries.



the design outlook in france

JACQUES VIENOT

Born 1893. Author, and administrative officer of *Printemps*. Recently founded and directed the "Chambre Syndicale des Stylistes Industriels."

What are the outstanding examples in France of good design in industry, business and government? —I believe that the size or scale of an industrial product should not necessarily be taken into consideration if we wish to determine whether its value is outstanding. In fact, good design may be of higher value in a very small instrument like a watch than in a locomotive. To express this clearly I have shown one example of the very small and one of the very big on the cover of our *Industrial Design* magazine No. 20: A padlock and the new French jet plane, "Caravelle." I consider both as valuable instances of good design. The same goes for the objects shown on the cover of the same magazine, No. 21, showing a cigaret lighter and a tractor-derrick.

Who are the representative artists and designers in France, whose work is utilized in industry? There are a great number of industrial designers in France who have not yet realized that they are industrial designers, and work more or less unconsciously as such.

In many cases technical offices possess one or more engineers who have an instinctive feeling for industrial design, and whose work and opinion will be considered by management when the appearance of a product has to be decided. The part which these engineers take in design is frequently anonymous. The responsibility for a product belongs to the team of engineers; the esthetic aspects of the development of a product, a conscious consideration of what and who gives it its "eye appeal," have not yet taken place. The padlock and the new plane I mentioned a minute ago are good examples of design, but no professional industrial designers have been involved in developing them.

That is one reason why our Professional Association of Industrial Designers, which I founded two years ago and whose chairman I am, does not yet include more than 25 designers, although I estimate that a thousand more ought to belong to it. However, it seems quite certain that the number of its members will increase in the coming years.

With the increase of commercial value that comes from the final appearance of a well-designed industrial product, our manufacturers more and more appreciate the function and services of the industrial designer, and on the basis of this appreciation, a new vitality has entered into our profession.

Industrial designers like Paul Arzona, Philippe Charbonneaux, Maurice Delieuvin, Pierre Lesellier, Pierre Lacroix, Louis Lepoix, Patrix, Georges Viaud, and others, are beginning to be well known in the industrial and business world. My idea in founding the Institut d'Esthétique Industrielle was to introduce art into the fields of industry, where it was unknown and not recognized until now as an organizational principle.

French poster painters have gained special esteem during the last fifty years. After Cheret and Toulouse Lautrec, Cappiello has really been the father of modern posters. His "Chocolat Klauss," 1903, has been the start of posters created for people who no longer walk, but move at the speed of their cars. A flat painted woman in green, riding a red horse, was, at that time, as surprising and perhaps as shocking as many of Picasso's paintings of today. Colin, Cassandre, Carlu, Savignac, Loupot, Villemot, have followed this tradition of introducing art into advertising, and they reach the masses without being vulgar.

Though building planning does not exactly fit our conception of industrial design, the boundaries being somewhat indefinite, I should add a word about a new attempt made by my friend, the architect René Coulon, who is recognized highly in France in the field of industrial architecture. Recently a private house designed by Coulon, entirely made of plastics, was shown at our domestic appliances exhibition. In this molded house, which like a shell possesses neither walls nor roof, one cannot see more than an attempt to interpret the future; however the furnishings of this house may be the beginning of a new development.

Not only is there a trend toward greater acceptance of good design on the part of industry,

but in some of its branches, especially those manufacturing products which are bought by average people—razors, sewing machines, typewriters, kitchen and electrical appliances—there is not only acceptance but actual demand.

The idea of good design has made great progress among manufacturers these last five years. Under the assistance and guidance of the Institut d'Esthétique Industrielle, we hope that more progress will be noticeable within the next few years. The influence of thorough and original styling will be felt especially in public works, machines, tools, lighting fixtures, sanitary appliances, cars, etc. . . .

I should like to make a few remarks along somewhat different lines: Is sale the ideal criterion of good design?

Good design is a very old story. Examples of it can be given for products made many centuries ago. You remember Leonardo da Vinci's statement to the King: "Your Majesty, I shall make for you guns as terrible as they are beautiful in shape." But the new factor is the methodical application of industrial design in order to increase sale and also to avoid business failures. When a craftsman loses a glass, it is not a great loss; he will blow a better one. On the other hand, when a modern manufacturer loses the sale of a glass because people do not like it, it means he loses the tools he had made to manufacture it and that represents a lot of money. That glass may have been of good design and if it does not sell well now it might sell later, when people have gotten accustomed to it. However, the manufacturer cannot wait and this brings him to consider the product that sells as being well designed and the volume of sale of a given product becomes, consequently, the criterion of good design.

In my own design company we are working at the moment for a big domestic appliance manufacturer. We have finished with the 1957 "new look" of his washing machine and are discussing the design for 1958. No technical change of any kind has been foreseen, and function and size are going to be identical with the 1957 model. What we are doing, therefore, is entirely artificial and, though we strive for progress in the design of these machines, it does not answer any real need nor does it have real value from an intellectual point of view.

The need for change appears in women's fashions more than anywhere else and seems to be accepted by everyone. Yet we should not feel obliged to change the design of typewriters or engines each year, as women change their hats, in order to please manufacturers who want to force this change upon us under the heading of "new fashions." This continuous change cannot possibly be indefinitely an improvement. Might it not happen that the industrial designer will eventually be drained of inspiration?

I am not against change, as long as it combines better function with better design. But I am against change at such a pace that no one is able to follow it, and I believe it is an unsound law to create only on the basis of profit, snobbery, or the fear of being ridiculous. These bases are artificial and do not answer the need for harmony which we must be allowed to satisfy. Also this may bring about a rather strong reaction and we can almost foresee a new advertising policy shouting—"The perfect exhaust pipe guaranteed against any change in its shape" just as a loan may be guaranteed against taxes. You may ask, if sale should not be the criterion for good design, or at least the only criterion, what else can I suggest to enable us to judge and to show what good design is? I shall try to answer this:

1. Since we French are brought up under the rules of Descartes, we like to know what we are doing and why we do it. This brought me to suggest, at the Paris International Congress, 1953, a certain number of possible laws that might be useful in formulating a theory of industrial design, or, as we might say, of "useful beauty." It would take too much time to enter into this subject now, but I hope it will be discussed later in the Conference. I think it is necessary to avoid instinctive and arbitrary judgment as much as possible and, if we cannot exactly define such concepts as talent we can at least attempt to create certain rules for harmony, in a similar fashion as musicians do. We must clarify our ideas on what is, and what is not, good design and achieve a theory of design. This is the first problem as I see it.

2. We have in France promoted an award, to be given to products that are judged by two juries. This award consists of a citation called "Beaute France" and is given by the Minister of Commerce. Fifty such citations have been awarded up to now.

The Italian Compasso d'Oro, founded by the department store, La Rinascente of Milan, serves a similar purpose, and so does—with very important and official means—The Design Center in London. In Switzerland "Die Gute Form" and in Germany "Der Rat fuer Formgebung" have instituted their own awards, as you most likely know. Similar endeavors are presently being undertaken in Canada.

I feel that this is an excellent way of forcing the retailer's and consumer's attention on products of esthetically high standards which might not have the commercial success they deserve. This has already proved to be a way of stimulating interest in good design, and of course, has its effects on competing manufacturers.

3. At the Paris Congress, 1953, I had asked my friends, Pierre Vago and Jacques Dumond, to formulate a constitution for an international federation of industrial design institutions. It took approximately two years until the American Society of Industrial Designers, (represented by its Chairman, Peter Muller-Munk), the English Society of Industrial Arts (represented by Misha Black, whom I am glad to see here) and both the French Institut d'Esthétique Industrielle and Syndicat des Stylistes Industriels (represented by Pierre Vago and myself), came to an agreement on the principles of this new organization. These three countries agreed to be founding members and to invite other countries to join them. The first meeting was or-

ganized in Paris in April of this year, and three more countries were represented (Italy, Belgium and Germany), others having given their provisory agreement by mail: that is Sweden, India, Holland.

I think the idea of submitting examples of industrial design to international judgment, as is done with films at Cannes and Venice, would be of very great value, not only from a business, but also from the artistic, philosophical and social points of view. I suppose you will agree with this suggestion. Our French Industrial Designers' Association, following this idea, intends to organize an international competition for one type of product each year. The first one is to take place at the 1959 Paris Convention. We hope that our President, Georges Combet, will preside with the same authority and care as he did at our 1958 Congress, and we also hope to see many American products there.

Industrial design, in its contemporary meaning, is not very old. At any rate, our idea of form is certainly going to be influenced in the future—as it has been in the past—either by technological improvements, by better knowledge of the human body's requirements, by the dictates of fashion, or other factors which are not yet determinable. This led me, after hearing Professors Souriau's and Schwippert's speeches at the Paris Congress, to suggest the instigation of a very new kind of study, concerned with form as it might be conceived of in five or ten years, and consequently the foundation of a center devoted to what I called "conjoncture morphologique." This center should not be concerned with, say, Motorama, or other commercial processes, but should rather anticipate the evolution of technology and psychology, of social needs and esthetic ideals, in order to prepare the designer for certain directions, which he should follow regardless of the consumer's dictates but for the consumer's ultimate satisfaction.

Finally, I want to point out that industrial design in France has "wind in its sails" now, but four years of occupation had very much delayed its progress. The reasons for its relatively quick recovery are manifold; not the least of which is the essential agreement among philosophers, critics, sociologists and artists, as well as technicians and manufacturers regarding the necessity for good design. This harmonious understanding between the intellectual and business world is a favorable sign for the progress of design in our country.

unfamiliar pictures of nature

DENNIS FLANAGAN

Although I am not a designer, I would gather that designers have always been acutely aware of design in nature. A designer once called a hen's egg the perfect package, although there have been recent attempts to improve upon it with plastics. Nonetheless I doubt that any designer would try to improve on the design of a tree. After all, these examples of natural design have had the benefit of two billion years of evolutionary trial and error.

There are other examples of natural design which most of us never see. I refer to two frontiers of science: the very large and the very small. What does an atom look like? When we look through a magazine, we often see an atom represented as a tiny ball—the nucleus—surrounded by three electrons moving in circular or elliptical orbits. The physicist does not see the atom this way at all. He may visualize the hydrogen atom—the simplest atom—as a tiny shimmer of resonant electromagnetism, sometimes shaped like a butterfly. It is difficult to visualize larger atoms. If we liken the hydrogen atom to a tiny resonant bell, the uranium atom would be a whole symphony orchestra. Of course most atoms do not occur alone, but in a vast architecture of molecules.

At the other frontier we have the very large. All of us are familiar with the immediate neighbors of the earth: the sun, the moon, the planets and the nearby stars. We have also seen marvelous photographs of whole islands of stars—the galaxies. It is more difficult to visualize our own galaxy, but even that is now becoming much easier.

These views are only a tiny sample of the whole universe. Most of the galaxies in the universe are so far away from us that they appear on photographs made with our biggest telescopes as fuzzy spots of light. Yet we can visualize the universe even beyond this. If our eyes could receive radio waves, the sky would look entirely different. Most of the radio "stars" are not associated with objects that can be seen in photographs. It now appears that many of these radio stars are whole galaxies in collision. What is more remarkable, the colliding galaxies are so far away that they cannot be seen with our largest telescopes. Indeed, the radio stars may be close to the edge of the universe. On the basis of such observations we may soon know whether space curves inward on itself like a ball or curves outward to infinity.

What do all these pictures (mental and visual) have to do with design? Just this. I like to think of the designer as an ambassador between technology and the creative disciplines of art and science. At his best the designer can make our daily environment reflect the deepest perceptions of the artist and the scientist. Need I say that this enables us all to share these perceptions?

PROFESSION OF DESIGN

design and the landscape in which we live

GARRETT ECKBO

American, born in 1910. Landscape architect of Los Angeles; professor and author of many articles and books on the subject.

Design is an art process. Art is a creative process carried on by people for other people. Any process is creative if it produces from existing technical and material resources new forms, arrangements, services or experiences which improve the world for people. Most people can participate in creative processes if conditions are right. Any activity can become creative if carried to its highest potential in such a way as to bring new forms, concepts or procedures into the world. Thus science and art, among others, are both creative fields. As Christopher Caudwell once said, "Art is the science of feeling. Science is the art of knowing."

If we agree that all human activity is potentially creative or artistic, then the fields normally considered Art must have a special function within this. Esthetic reaction involves an art object or arrangement and one or more observers or participants. The work of art without an audience has no meaning. Reference to the inextricable integration of music, dance and sculpture into the daily lives of many so-called primitive peoples will reinforce this conclusion. What does art do for its audience? It improves their understanding and experience of the world, by communication, solution of specific problems, visual enrichment, creation of new relations between people and the world around them. It explores especially sensitive ways of communicating thoughts and feelings about the world: how it may improve or change, how it may be enriched so as to raise our standard of living, how we may better orient ourselves within the world so as to lead better lives. Art must constantly improve the world around it and advance its own tradition in order to justify its name. Works called Art which do none of these things are mis-named.

Art varies in scale, in relation to human size. Some fields are concerned with objects or elements which are smaller than people, and may be handled and looked at, whether functional or not. Even if larger, their nature is still such that we walk around and look at them. These include painting, sculpture, furniture design, industrial design, graphics, textiles, mechanical engineering, etc.

Other fields are concerned with organization and control of the 3-dimensional space within which people live with these objects and elements—architecture, engineering, landscape architecture, planning. There is, of course, a direct connection—object design is essential to the completion of the interiors of spatial design.

Communication and improvement of the environment may be said to be two primary functions shared by all of these arts. Emphasis varies—literature is primarily communicative, music and painting do either or both, architecture is primarily concerned with improving the environment. Yet literature can help in the latter aim, and architecture has a definite story for those who can read it.

Landscape design (Landscape Architecture) is an art of improving people's use and experience of outdoor space. It may also be called an art of improving direct physical relations between man and nature. It works through jobs—land development problems which are presented by a client or group of clients. Each such problem involves a specific piece of land, with fixed boundaries and topography. On it there usually is, or is intended to be, one or more buildings, and there may be various other structures or trees, rocks or water. This site will be surrounded by a landscape of specific character—urban, suburban, rural, primeval, or, as Victor Gruen said last year, cityscape, sub-cityscape, technoscape, transportationscape, suburbscape.

The clients will have various needs, desires and economic resources, and these together constitute a program. The needs and desires may be vague—"a beautiful garden"—or specific—a swimming pool or tennis court. The resources are almost always inadequate for the balance of the program.

In addition to these more or less formal elements of the job there are many others which may not be pointed out by the client, but which the designer must determine for himself in order to do a good job. These include:

Personality and attitudes of clients or their representatives. (Sometimes these show up too late in the job.)

Technical problems—Local construction, soil, climate, drainage and vegetation patterns and possibilities.

Functional or use problems—What relations between people, structures, site and surroundings are established or implied by the conditions presented to the designer—how does one get in or out of the project, on foot or on wheels? What goes on inside the building? What will be seen out each window? What specific activities are desired outdoors on the site? What do they require in terms of surfacing, enclosure, shelter, furnishing or equipment? How will one circulate between the building and these various activities, and in general through the site? Are there privacy problems in relation to the neighbors? How will the project be managed and maintained? This kind of analysis is required for every piece of land, whether tract lot, large estate, school, hospital, park, or complex of public buildings.

Esthetic problems—Careful technical and functional analysis is basic to every landscape design process. However the final solution can seldom be produced from this alone. These objective factors of landscape development are seldom strong enough to determine precise forms in the solution, although they are strong disciplinary controls. It is the careful analysis of all these objective factors which has distinguished contemporary design in California the past twenty years, by contrast with a former tendency to rely on the forms of tradition and

precedent. However I think all my colleagues will agree that we have found no safe ready formulae for successful design, but rather have complicated our problems by throwing open the field of choice. What are the overall disciplines for landscape design?

Landscape design is most successful when it produces recognizable units or continuities of outdoor space or volume, with special characters and proportions. The definition of this space is accomplished by the placement of buildings, trees, ground forms, shrubs, rocks, water bodies, ground surface patterns, fences, walls and shelters in such a manner as not only to solve the technical and functional problems but also to impress the user or observer with the special quality of the space between and among these elements. This is the 3-D of landscape design, more important than patterns with flowers and paving, foundation planting, or pretty pictures out the windows, and inclusive of them. It is subject to endless variation in conception and execution, even as painting and sculpture, to which it is closely allied.

Architecture is important to landscape design because it is the primary expression in the landscape of human creativity and control of nature. It has a great tradition of bringing magnificent order out of manifold complexities, of putting great quantities of highly variable members and elements together in such a way that the result has a new and special identity, greater than the mere accumulation of parts. At best it represents the highest levels of human imagination, the broadest connection between abstract conception and concrete reality, the greatest steps toward production of a completely humanized environment. The fact that our communities generally fail to make use of this potential should not obscure its importance.

Nature is important to landscape design because it is the world of forces and processes within which we live and work, the world of which man and all his works are an inextricable part, no matter how broad the contradiction may become between his efforts to control nature and to preserve her. Although very often landscape design has to defend nature against the destructive attacks of man, its true constructive role is the establishment of connections, relations and adjustments, both physical and visual, between buildings sites, and their surrounding landscapes; that is, between people and the total landscape around them. This means that in general landscape design must work with forms and materials derived from both the specific structures with which it works, and the specific sites and landscapes around them; or, from both architecture and nature. It is in the combination and interrelation of these diverse forces, in many complex patterns ranging from complete integration to complete contrast, that the vitality of the art lies. It is thus an art of continuity, of connections, of relations to existing forces, more than an art of pure and original conception, as architecture. Neither the Renaissance idea of forcing architecture on nature, nor the romantic idea of forcing nature on architecture, can solve our problems today.

Society is important to landscape design because it presents problems for solution and opportunities for production. The humanized landscape is the expression of social forces on the world of nature. For thousands of years landscape design officially solved problems for a small minority of the population—private parks, estates, villas, palaces. Central Park in New York initiated a new and unprecedented phase of landscape design, in which the general public became the client. The fact that these new park problems were solved largely with forms developed by the romantic movement in the 18th century should not obscure the importance of their impact upon the general landscape.

Typical landscape problems today are: small, medium and large gardens; estates; schools, hospitals, churches, clubs, community centers; shopping centers, colleges and universities, public building complexes; parks—small, medium, large. These can be boiled down to typical groups: private gardens, public grounds, parks and public recreation spaces.

Private gardens make up a large part of the total area of humanized landscape, are greatly variable in the detailed relations between house and site, the broad and intricate play of individualized creativity, personal expression by choice and whimsy, family life, and the range from visual pleasure through outdoor living to active gardening, from utility gardens through living gardens to show gardens. They also involve the greatest concentration on detailed humanized scale, and intimate livability. It might also be said that the majority of private yards never become gardens in the sense of these words.

Most landscape problems—except parks—are intimately involved with buildings, that is, with architecture. The relations between these two arts are constant and unavoidable. Architecture, as the art of shelter, enclosing and creating indoor space, has a maximum impact on the landscape around it. As practised, landscape design and architecture differ in certain important aspects:

1. Material—Architecture uses the complex variety of construction materials. Landscape design uses some of these, but primarily the materials of the natural landscape—rock, earth, water, plants. These are also complex in their variations.

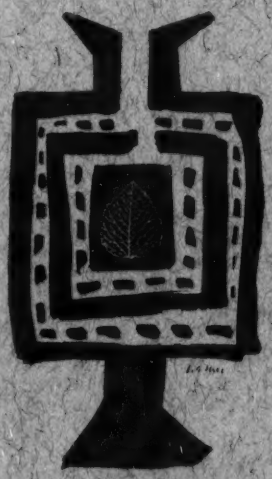
2. Discipline by technique and function is usually less in landscape design than in architecture. The parts of a garden don't hold each other up, and a garden space may have no function at all except to provide a pleasant experience for those looking into or passing through it.

3. Scale—The scale of architecture is a compound of human scale and structural economy, often reflecting the site scale. The scale of landscape design is a compound of human scale and site scale, often reflecting the scale of the surrounding landscape.

4. Continuity—Architecture tends to produce buildings which are complete and self-sufficient works of art, however carefully they may be related to the site. Landscape design must almost always

establish a relation or connection between building, site and surrounding landscape. Therefore it tends to establish continuity between them, must relate itself to their forms and hence cannot be self-sufficient. Of course, when architecture does groups of buildings it also becomes concerned with continuity.

Landscape design today begins with back yards and front yards and all the miscellaneous open spaces left over by building, street and utility construction, within the pre-conceived patterns of standard subdivision and land planning practises. It expands from these problems into larger planned open spaces—parks, school and college grounds, other institutions, parkways and freeways, country clubs, golf courses, etc. In the future landscape design will become synonymous with the unified design of the humanized landscape. The basic vocabulary for this includes ground forms, buildings, trees, vehicular circulation, pedestrian circulation, green open space, paved open space, water forms. The secondary vocabulary includes all the multiple furnishing, equipping and enriching detailed elements of the man-made world and the world of nature. Thus landscape design begins with the common or garden variety of local landscaper, and ends with the merging of all the space-planning professions and all the other fields of design concerned with improving our world.



graphic design in england

F. H. K. HENRION

Born in 1914, studied in Paris. Industrial designer, author, editor and professor, now Director of Visual Planning in the London office of Erwin, Wasey & Co. Member of the Most Excellent Order of the British Empire.

To find out and state what is peculiar to graphic design in England as to that in other countries one has perhaps to remember the geographical position of England. This island is as you know, on one side separated from the rest of Europe by a narrow channel of water; and connected on the other side by an ocean with the United States. The fact that a dialect of the language spoken in the United States is still used in Great Britain seems to suggest to many people that we have a lot in common with each other. I submit that this fact very often gives rise to a dangerous illusion. It is certainly true that those sections of the American people who have English antecedents share a lot of the thought and the background of England, but the same applies to the Polish, Italian and other sections who have equally much in common with their countries of origin. At the same time, in spite of all these different antecedents, I think there is such a thing as an American approach to design.

In order to explain different trends it is sometimes useful to exaggerate things a little so that the differences and similarities between them become more apparent. Thus it has been said that the creative approach in graphic design in the United States is to put the chart before the course. This means that statistics are ever more important in determining the course of any creative work. Statistics on everything: on consumer acceptance, on consumer prejudice, on consumer preference which are surveyed with such precision that before you put pencil to paper, you are already surrounded by a wall of taboos, must-nots, should-nots, and at the same time coached into certain avenues of desirables, of acceptables and of succeedables. This approach stems, of course, from advertising but it has by now invaded most fields of graphic design.

On the other hand, and by contrast, you have the continental—specifically the French, Swiss and Italian—attitude which works entirely in reverse. They, in fact, put the cart, but it is a carte blanche, before the course.

We in England are situated between those two theories, and we find that both are very much defended. The second naturally finds favour with most of the designers and artists, whilst the first is much advocated by most of the advertisers and advertising agencies. As a result, at worst we fall between two stools; occasionally, however, we make the best of both worlds. We pay a certain amount of attention to the background and the market requirements, market analyses and surveys, but we are prepared to throw these overboard if an intuitive idea of such quality turns up which in spite of safe precedents (tried and therefore trite), promises to capture attention in an original way, and draw it pertinently and wittily to the point of sale or information. This approach very often gives the best results equally in terms of sales and aesthetics. However, the more we get involved in mass media, be they magazines or television, the more we get involved in the network of charts dictating the course to take.

Usually the higher the standards of design, the smaller its circulation, not because the higher de-

sign standards prove less successful with the majority, but because the small advertiser is frequently more daring in his approach than the large one. Only too often large advertisers seek refuge in what seems to them safe, with the result that they aim to conform to and repeat what others have done, achieving only the common-place, the trite and very often the vulgar. Of course, there are exceptions to this, and we know them all, from Olivetti in Italy to the Container Corporation, and a few others in your country. They are only exceptions to confirm the dreary rule. The question is: will these few enlightened companies stay exceptions or will they be an inspiration to others and act as pump primers? Will the high standard of the minority by sheer example eventually influence the low standard of the majority? Surely we all agree that this would be a desirable thing, but I believe it can only be achieved by the designer acting as a pioneer, working not only for the enlightened section of industry and commerce, but trying to guide and convince those who revel in mediocrity.

Is it the lowest common denominator which should dictate the standard of our work, or could we not aim at the highest common multiple? In Jean Cocteau's words 'is the plural to dictate to the singular?' or is it the moral duty of the gifted few to give what they have to the many? In this connection it is perhaps important to draw a distinction between an elite and a mandarin class as a qualifying thought. It is axiomatic that no society can prosper unless a few of its members, be they shop stewards or commissars, or members of the orders of chivalry, are willing to assume the responsibilities of leadership. In an elite, this responsible minority has grown out of the mass and is rooted in the same soil and speaks the same language. As for the mandarin class, they live in a world of their own and impose their views on a majority with whom they have little in common, and with whom they have lost touch. It is needless to impress why I draw this distinction in this context.

Of all the mass media, television is of course the most important although it has proved the most frustrating and discouraging field to work in. Its importance and power to influence millions of people in a minimum of time is such that nobody interested or active in the visual arts can ignore it. For instance, the $64,000 Question has been seen by more people in 10 minutes than Oedipus Rex in 2,500 years. This seems to me a frightening consideration; however, it also holds out a hope: What can be learned in 10 minutes can surely be unlearned in the same time. As the man behind the television camera guides the eyes of millions, it is essential that this pair of eyes should belong to a man of outstanding visual imagination. In fact, they should be the eyes which are entitled to visual leadership of others. Producers and directors must be visual men, and visual men must be producers and directors. To paint backgrounds, to design costumes and graphic effects is most important, but however gifted and inspired the men and women in these jobs may be, it is of small avail unless their work is shown to best advantage, and made part of a visually exciting continuity conceived in advance and worked out in detail. It is not sufficient to produce sound which has to be accompanied willy-nilly by vision because the medium is received through eyes as well as ears.

Another comforting fact to be remembered in this connection is that most of the people have a sound, though sometimes inarticulate instinct which responds in the long run better to some things which have an intrinsically aesthetic quality than to things which lack it. This instinct is sound because it is rooted in nature. Biologists and psychologists agree in telling us that there are two constant influences at work on every animal—heritage and environment. Men's heritage is the instinctive pleasure derived from sensory contact with the colours, shapes and surfaces of the world of nature, both organic and inorganic. In nature, colours, shapes and textures are distributed in perfect proportions—perfect precisely because they are natural. No one has ever found a lapse of taste, a discord of colour or an ugly line, in nature; on the contrary, nature provides us with a yardstick of artistic standards. Lapses of taste only occur in a man-made or more particularly a machine-made environment. These, unfortunately, have occurred with increasing frequency during the last 150 years, as the human environment has been more and more affected by the growth of unenlightened industrial mass production, often inspired by men whose only motive was the accumulation of rapid profits.

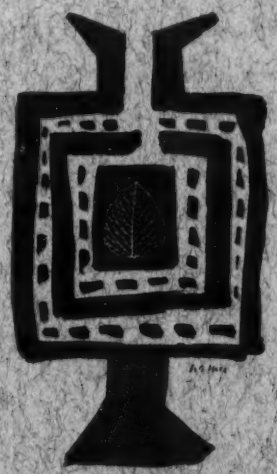
In this context all manifestations of design can readily be seen to have a certain social importance. From morning to night man-made things—and they are all designed however badly—make up the most prominent part in our daily environment. In one form or another design today is ubiquitous; in the bathroom and on the breakfast table, in streets, offices and shops, in the evening world of pleasure or relaxation, manifestations of design are continually and subtly at work upon our aesthetic sensibilities, for better or for worse.

That it should be for better must clearly be the designer's aim, but what should guide the designer to enable him in turn to guide others? Is it only his intuition, or from contact with and the example of friends and colleagues with a similar outlook? It seems desirable to me that one should attempt to see as much as possible the whole of design, which in its final analysis comprises really the whole of life, and to comprehend the points of connection, of relation, of integration. These points can only be arrived at by horizontal and vertical orientation. Let me explain: horizontal orientation I mean looking beyond our own field to see what is happening in all the fields of applied design, painting and architecture, and in fact everything visual; knowing what is happening today in the other arts, in music, literature, also in science and philosophy, in fact in every possible field of human endeavour. This horizontal orientation, however, is not enough lest we get dangerously contemporary in outlook. We must also go back vertically in time, to be aware of what happened in each of these fields

historically before they evolved to their present stage of development. It is, however, obviously pointless to amass such encyclopaedia knowledge even were it possible. What really matters is to have a point of view which encompasses certain points of orientation, both horizontal and vertical.

Only if we are aware of what is happening now, and what has happened in the past, can we produce something in the present which will be of value in the future. Only in this spirit can we be aware of present-day trends without falling into clichés or easy solutions which are not felt but merely cleverly observed.

It is not knowledge which matters but the attitude of mind. The general approach, discernment or judgment must at all times depend on comparison, but comparison, not only with the work of colleagues so widely publicized nowadays in the many shiny magazines, but with things which are comparable, which were right at their time, which will be different today. Study of this kind establishes trends of evolution, which can successfully guide us to design today things which may prove valid tomorrow.



the direction of visual art in switzerland

JOSEF MÜLLER-BROCKMANN

Born in 1914 in Switzerland. Designer, illustrator, exhibition designer and stage designer. Has exhibited in Zurich, Barcelona, Copenhagen, Milan and Paris.

The boom which began at the end of the second World War and which has been lasting on undiminished to this day has given rise to a spate of products in all fields of art. What the pioneers of our century, the "Stijle" movement in Holland, the "Bauhaus" in Germany, the "Werkbund" in Germany and Switzerland demanded in clear unambiguous terms has again been jeopardized through the necessity to satisfy an enormous demand for goods of all kind.

This forced tempo of production has set free harmful speculative powers which know how to pander to the desire of the masses for the sensational and fashionable and therefore mar the serious study of the fundamental and essential problems. Add to this the perpetual uncertainty of the political situation, the daily news of the progress in the field of atomic weapons of destruction, the description of their almost boundless effects, new undreamed-of records in the conquest of space and time, and the vast developments in all fields of technology, all of which have demonstrated to the individuals their inability to take any effective action in this tremendous inexorable mechanism.

Loss of direction and loss of purpose have become the distinctive marks of our time.

Medieval man with his allotted place in the solid structure of church and empire had a clear orientation in this world and the next; modern man is without faith in God and without an idea of God and often finds himself in opposition and antagonistic to his temporal authorities: thus he is thrown on his own resources.

He is lacking a firm foothold and the necessary training to find his way in the fantastic supply of spiritual and material goods.

For years a number of serious artists, and with them the "Schweizerische Werkbund" have been struggling against this trend in individual and joint constructive action. They try to interest a wider public in their efforts by means of exhibitions and individual advice and with the public recognition and distinction of good work.

Their demands are professional sincerity, intellectual discipline, high craftsmanship.

Their aims are to give expression to the feeling and thought of the artistic powers of our time in a supra-personal anonymous form-language in order to mark a path for the future in the chaos of our time.

Re-shaping our own world presupposes our own spiritual and intellectual discipline, an ever-alert consciousness and an unflagging and relentless watchfulness over our own work. Only then can we expect our surroundings to regard this work with disciplined and constructive criticism.

Our work is to be co-related with everything that is useful and constructive in life. Isolation may produce good results but it will not satisfy the need of our time.

It is expected of the architect that he be interested in the social aspects of architecture and that he take an active part in a sensible, socially-useful town-and-country planning.

Furniture, the product of the interior decorator, ought to be the expression of practical habits, in accordance with our time. It should be formed true to the material and capable of being produced in series. Normed furniture which can be acquired by the consumer little by little at intervals must come

up to a good aesthetic standard, even as single pieces. Industrial design should not only aim at an aesthetically satisfying exterior form but also at functional purposefulness. Mass-production of well-designed and low-priced consumers' goods should also be attempted.

The advertising-designer ought to be guided by the characteristic qualities of the commodity or the idea which he is advertising. This means that typography, photography, drawing ought to give objective and truthful information about the character of the commodity.

The craftsman (goldsmith, textile-designer, glassblower and potter) should also work true to the material and aim at simplicity of form, so that his products can also be put on the market in series.

Concrete painting and sculpture with their creative method and thought have vast possibilities and are in full harmony with our time. Their form-world has features of timeless beauty. Concrete art with its works shows the most modern trend in painting and sculpture and opens up new vistas for the future. Its importance will gain in width and depth. Architects will learn to recognize how well it lends itself for murals. The idea of the picture is set in clear, stern proportions and a firm optical order. There is no place for witty and interesting picture freaks. It is an art without sensation and virtuosity. This group of artists give a convincing idea of clarity of thought in art, imaginative designing and disciplined execution. New fields of designing are rendered accessible.

Stage decoration is no more the setting of a naturalistic play and plot but lays open the spiritual plane of a dramatic work. The stage itself in its plan and in its perspective view, is the field of conscious proportions. The naturalistic plane of a play has been left behind and the stage-setting puts the play on its spiritual level at which nothing is unessential and everything has its purport.

With these thoughts I have tried to fix the spiritual basis which directs the work of the modern, progressive artistic forces. If those are to be mentioned who contribute an essential share to the formation of style in Switzerland we would name the following architects and interior decorators: Bill, Frisch, Guhl, Gisel, Haller, Schader, Rasser, Vadi, Wurster, Padrutt, Altherr, Haussmann, Thut, Kunstgewerbeschule, Zürich, Frey, Ruf, Bellmann.

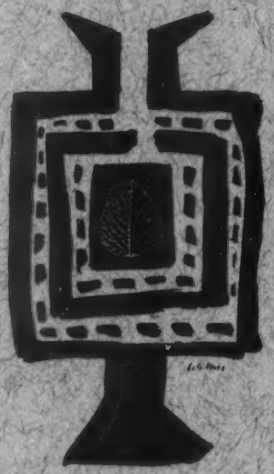
Industrial designers: Bill, Guhl, Kohler, Perles, Steiner & Steiner, Tell, Jacot, Hasler AG.

Concrete painters and sculptors: Bill, Aeschbach, Graeser, Vreni, Löwensberg, Lohse, Wyss.

Graphic designers: Flückiger, Gerstner, Hoffmann, Odermatt, Lohse, Neuburg, Rudin, Rueder, Soland, Vivarelli, Willimann, Schmid, Rösli, Bisele, Müller-Brockmann.

Photographers: Finsler, Gröbli, Heiniger, Libiszewski, Scheidegger, Schulthess, Stauffer, Staub, Wolgensinger.

Craftsmen (gold- and silversmiths, textile-designers, potters): Glauque, Fröhlich, Bill, Kunstgewerbeschule Zürich, Gröninger AG, Tischhauser, Co., Vitali.



the practice of design

ALBERTO ROSSELLI

Born in Palermo in 1921. Degree from Milan Polytechnic. Organized the International Exhibition of Design in Milan in 1945. Founder of the first Italian Association for Industrial Design (A.D.I.).

Today, when talking of design, we have to trace the premises of our yearning toward renovation in the state of affairs of our industrial civilization. The fact that industrialization and its issue are held as a common phenomenon does not dispense us with considering the substantial variety of industrial developments in the various countries. The integral industrialization achieved by the United States today, and the ways it affects its mode of life and culture still appear as something remote not only from contemporary reality, but also from the reality of a near future in European countries.

We wish that this industrial civilization, which is also becoming a unity of nations and steadily prevails over isolation, may keep abreast with human, economic and social developments. We hope it will not force upon mankind a single manner of development and, on the contrary, will supply them with the means of diverse interpretation. On the other hand, if there should be an inflexible interrelation of cause and effect between economic and productive issues on one side and artistic expression on the other, between production and design, between quantity and quality, then we should be left with the only alternative of waiting for the advent of an identical economic and

productive phenomenon in our countries, and in the meantime we would keep confined in our own lands having given up what we deem most essential at present, namely our mutual exchanges of diversified experiences.

This kind of observation is the starting point which makes possible our exchange of views on the new meaning of design in the light of a different economic and industrial development in the contingent circumstances. Though the material events of an economic development may inspire and affect us differently in our respective countries, we all feel equally responsible toward a civilization and community which is being shaped in our hands. A firm attitude which attributes to technique and industrial processes the role of mere means will supply us with new opportunities and energies.

We are prevailing over the tenets of technical determinism, and we are entering a climate where culture has an active part also as leader of our doings.

The fact that at present artists have steered their intuition toward industrial production thrusting themselves into economic and social facts is very significant, but I think that is very significant too the fact that technique is proceeding toward intuition, toward a unity of its own which coincides with art; so that this motion sets off from two opposite directions—technique and art, and it advances towards an ideal meeting point. I believe, however, that many instances of renovation and research, particularly in the European architectural field are deriving with increasing intensity from an apparently new aspect of technique which is no longer developing according to rational schemes of calculation but under a creative urge.

The conflict existing today between the technician who avails himself of intuition and the technician who uses calculation is doubtless more irreconciliable than the conflict existing between the technician himself and the artist. We can presume that the latter counterbalance somehow each other as it occurs in the case of different people in search of a practical result. But in the case of the former their very manner of proceeding does not allow two discordant approaches. If we assume that technique may advance into the sphere of intuition, we cannot at the same time believe in a further improvement of rational methods.

I am of the opinion that technique is on the point of winding up its rational experience and, by means of a new intuitive approach, it will furnish new contributions which we can take more as contributions to form than to technique, namely as immediate contributions to architecture and art. Today's architects and designers seem to stand at the meeting point of two different technical approaches rather than among some figurative ideas.

The movements which developed in the first half of this century have brought about a first detachment from the formal conventions of the past, and as they advanced they acquired a new important significance linked to the events of an industrial era and to the new social demands. Above all they impressed a new morality upon our work. The evolution of the rational school in functionalism has added new values more adherent to life and culture to its rational element. It has taken again into account the psychological content of environment. These movements, however, did not solve the figurative problem on its whole and, at most, they were just able to perceive it. The figurative approach of this era of ours is to be traced chiefly in some pieces of work which until yesterday stood on the demarcation line between technique and art and today are becoming an exciting part of our conscience of artists. The new figurative approach is being borne and thrives as the intuitional technique shapes and strengthens itself and the feeling arises of space continuity, of homogeneity between structure and volumetric data, of capacity of expression proper to structure when culminating into perfect form.

The tendency to consider forms as an addition of independent elements (structure, covering, finishing) has widened the intervention of industrial production into architecture bringing about a series of perfect technological solutions which, however, when applied to building, are often mechanically assembled. When he builds, the architect is still often the formal interpreter of a situation ruled by technical elements. His very conceit, however free from any predeterminated tie, is stifled from the outset by the inability to understand technique as a creative power and force. The architect has not yet acquired an adequate power nor the organic means of expression which rely on the knowledge of every component of design. There are only few instances of men who mastered this knowledge and fully understood a technical process, and thus were able to settle within themselves such anachronism and produced examples of fully fledged creative capacity free from any formal compromise. Consequently, although the most recent achievements of architecture on their whole have brought a style, such style is now becoming academical. Such an acknowledgement causes a reconsideration on our part of some preliminary conditions of our work. It justifies our yearning toward a constructive force which we abandoned long ago, and toward a unity of experience which should bring forth a unity of form. At present, as we can perceive the possibility of technique issuing directly and intuitively in form, the architect can acquire the necessary power which will enable him to understand every component of design and to become the actual and only responsible interpreter in all the problems arising from his work.

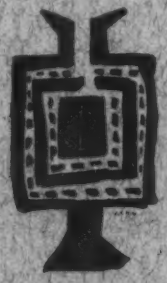
Technique, when connected with a production process, tends to avail itself of well organized research centres where its achievements find ample opportunities of a wide distribution. The method and habit of setting up scientific research laboratories where new ways of industrial production are experimented, are now being applied to other quarters where they interfere with artistic intuition. There are laboratories where research on the new plastic material is being carried on, but there are also research centres for the application of plastic to architecture. There are research laboratories

working on colour pigments, but there are also research centres for the use of colours. As industry improves a production method, it organizes and plans the distribution of its products on the market. Unfortunately any research outreaching scientific limits and exerting a systematical influence over artistic creation, may originate new perplexities and reduce our work to new bondage. We often have to preserve ourselves from commonplaces which have become matters of rooted opinion and general demand.

A similar phenomenon falls in particularly with industrial design, which is more liable to being affected by systems and methods devised in the industrial sphere. It affects architecture as well, owing to the more and more frequent contacts it has with the production world through manufactures which reach us with their features well defined by a very advanced technology.

At this point research ought to justify all its new experiences, and from the outset, from the very beginning of technology and building methods, the understanding and interpretation of culture and actual human requirements should step into laboratories and industries. Right from that moment we must take again into account the facts of environment which have been the constants of interpretation through centuries and the main theme of a homogeneous evolution ripened among the nations on their own soil. Thus a new meaning would be added to the term "tradition" beside that of consideration of previous cultural values, namely the meaning of inspiration for sound form and technologies.

The idea that we may perceive behind some almost revolutionary pieces of work and our search for spontaneous forms diversified by the cultural traditions of the different nations, are not opposed to one another. The evolution of technology as well and the fact that in some instances technique does not fall in with recent tradition but is linked to historical tradition may be considered as the most immediate effect of the prevalence of culture in this field too. I think it justified to request and to expect, on behalf of our most spontaneous traditions, the renovation and progress which, together with our contemporary movement, derive their origin from the rejection of the previous formal conventions.



the practice of design

SORI YANAGI.

Industrial designer from Tokyo, born in 1915. Professor, author and lecturer, he is head of the Yanagi Industrial Institute and a member of the Japan Committee on International Design and the Japanese Industrial Design Association.

Although my own field is industrial design, I should like first to speak briefly on the status of graphic design in Japan. This is because there is such a great contrast between the two fields today in my country. Graphic design has advanced very rapidly since the war. Today, there are as many as 300 members and several thousand associate members in the Nissembi, a professional club for graphic designers. This great development in the design field has probably come about because industries, which were suddenly released from their wartime control, came to realize the importance of design in advertising in a world of free competition. Another factor drawing some interest to the field is that it is more lucrative than others. The visit of Mr. Raymond Loewy has had much effect on advancing the position of the graphic designer. You perhaps know that when Mr. Loewy came to Japan, he designed the packaging for the cigarette, *Peace*. His design fee was more than a hundred times that of a Japanese designer and one which the Japanese would never have dreamed of asking. But, because of this precedent, the design fee in Japan took a spectacular leap. For this, the Japanese graphic designer should be deeply indebted to Mr. Loewy.

I should probably also add that most of these designers are concentrated in the Tokyo area. This applies not only to the graphic designer but to others also, such as architects, industrial designers, etc. There is, however, a graphic design boom in Tokyo. Even young persons without much experience are hanging out their shingles. This, of course, is not always inducive to producing one's best work. The situation in Tokyo is no exception. The majority of the graphic designers tend toward commercialism and produce designs rather low in quality. Actually, there are perhaps only about ten who are doing really creative work which are recognized to have a good deal of uniquely Japanese features.

Compared to the prosperous situation of the graphic designer, the lot of the industrial designer is much less fortunate. In fact, industrial design is only in its elementary stages in Japan today. Society has not yet come to realize the important role of the designer in industry and many people fail to understand the true meaning of industrial design. Furthermore, there are many difficult obstacles for the designer to hurdle.

The first of these is the competition which an independent designer faces from government designers. This is quite a serious question when one stops to consider that the professional club for in-

dustrial designers called the JIDA or Japan Industrial Designers' Association is composed one third of free lance designers, one third of designers employed by specific industries, and one third of government designers. These government designers come from a research bureau called the Industrial Arts Institute. Originally, such institutes come into existence in cities in the provinces in order to preserve local handicrafts. With the shift of emphasis in the postwar period toward industrial design, however, these institutes also changed their main purpose to one of pointing out the direction in which industrial design should develop. They have done a little research on function of design and basic materials, which has been of some value to the industrial designers in Japan, but, generally, their findings have contributed nothing original. Instead, they entered into competition with the free lance designers, doing actual designing free of charge or very inexpensively. Moreover, bureaucracy being the way it is in Japan, with the top positions held by seniority rather than ability, the designs which result are not too stimulating to say the least. Furthermore, these industrial arts institutes, of which there are eighty now throughout Japan, wield a great deal of power in the country. The majority of the free lance designers were originally members of these institutes.

The second big obstacle which the designer, both free lancers and those employed by specific industries, faces is the deficiency in research. This handicap is due not only to lack of funds but also to the fact that there has never been the tradition in Japan of conducting such private research. What research there was before the war was under the direction of the army principally. It is important, therefore, that much effort be made in the future to remedy this situation.

In the past, Japan excelled in handicraft products such as pottery, lacquerware, wooden and bamboo articles. But, as industrialization became more widespread, these objects could not compete with the manufactured articles which were much lower in price and gradually became poor in quality or disappeared. Artists and industrial arts institutes exerted their efforts to preserve or revive these traditional skills, but almost always their efforts met with little success and their products lost their sound and humanistic elements. The handicraft creations which are so highly praised by people of good taste are those in whose production the members of the industrial arts institutes had no part. In Japan, unlike Sweden, this high level of quality in handicrafts did not carry over into the industrial stage. One reason for this is the economical aspect which became the main motive behind industrial production. Another reason is that industrial production is not based on a solid foundation of tradition and is rather a sudden importation of western ways without a true understanding of the full significance of the method. Thus, there is a gap between the Japanese way of living and the articles produced industrially. Perhaps a brief explanation of the complex way of living in Japan today will paint a clearer picture.

Most of you are probably familiar with the typical Japanese home. Of course, there are many styles but they all use the standard size "tatami," "shoji," "fusuma," etc. Then, there are the western style homes in which there are rugs and all kinds of furniture. In between, there are homes combining both elements, with western as well as Japanese rooms. This variation in homes is but a reflection of the variation in the modes of living in Japan. There are people wearing western clothes and others wearing Japanese kimonos. There are people sitting on the "tatami" floors and others sitting on chairs. There are people eating western foods using knives and forks and others eating Japanese foods with chopsticks. Then, there are those trying to combine these two ways of living. Japan is, therefore, in a period of great change. No one can answer simply to the question, "What is the Japanese way of living?" It is for such a complex way of life that we Japanese designers are trying to create new designs.

By way of illustration, I should like to mention a few things which I have designed. A major problem which called for immediate solution was the necessity for some chair which could be placed on the "tatami" and yet not damage it. This is because many people prefer the use of chairs and yet are reluctant to give up the "tatami." This chair, however, had to be so designed as not to destroy the traditional delicate proportions of a Japanese room which are so highly appreciated. As you probably know, it makes a great difference whether a room is viewed from a sitting position on the "tatami" or from the elevated height of a chair. Therefore, as a compromise, I attempted two kinds of chairs, both of plywood. The stool is thirty-two centimeters in height and made of two bent plywood boards, connected by only two bolts. Since the legs of a chair would leave imprints on the "tatami" I designed one in which the weight would be distributed. With the use of such stools, moreover, the height of the table had to be changed also. In this manner, a whole series of changes is started with an alteration in just one feature of Japanese life.

Another design of mine is the three-wheeled auto. Japanese roads being too narrow for ordinary trucks, the demand was for something which could be used for making deliveries and yet not take up too much space and still be economical. My "auto sanrin," as it is called, has two cylinders, runs 18 kilos per litre of gasoline and carries a load of one ton. I have actually seen this sanrin loaded with three times that amount, however. A special feature of this sanrin is that it is built to run on bad roads so it is very strongly built.

Thus, as you can see, in a poor country like Japan, economy is one of the main aims of industrial design. I may have painted a rather bleak picture but the field is still a young one in Japan. In the future, it is the hope of many of us that education of design will be improved and that new ideas of design may be investigated before there is even the demand for such a design. Japanese designers are striving to create articles which, though more expensive, are of good quality and good design.

EDUCATION AND DESIGN

some philosophical questions about design

MORTIMER J. ADLER

Famed University of Chicago philosopher, now Director of the Institute of Philosophic Research in San Francisco. Associate editor fo "Great Books of the Western World". Born in New York, 1902.

The questions about design I would like to ask are, I hope, not philosophical in the sense that they are of interest only to philosophers. I would prefer to think that they are philosophical because they are fundamental and inescapable questions which anyone who is interested in design must face. Let me say at once that I do not know the answers to them. I do not understand the nature and meaning of design well enough to find the answers or, given competing answers, to judge where the truth lies. I look to you who have such understanding for the right answers and for the reasons why they are true.

The questions themselves, of course, rest upon some understanding of education and of art. As a philosopher who has long been concerned with both subjects, I think I have enough understanding of the purpose and kinds of education and of the purpose and kinds of art to make clear why I ask what kind of art design is, what purpose it has, and what kind of education you have in mind when you propose to discuss the relation of education and design.

Let me begin with a basic distinction in the kinds of education and proceed to an equally basic and closely related distinction in the kinds of art. My questions about design will emerge from these distinctions. The clarity of the questions will depend on the clarity of the distinctions.

1.

The most fundamental distinction in the sphere of education or learning, in school and out, turns on the purpose for which anyone learns anything. If the learning is for the sake of leisure, it is liberal. If it is for the sake of labor, in the sense of work productive of the means of subsistence, or even of the comforts and conveniences of life, then it is not liberal. I say "not liberal" rather than "vocational" or "technical," because some of the arts for which technical training is needed belong to the pursuits of leisure, and some of the professions for which men must be vocationally educated are creative of goods that enrich the mind and spirit of man rather than productive of things that serve the needs or comforts of his body. To name the kind of education which is not liberal because it is concerned with the production of such serviceable things, the designation which seems to me most apt, though it is likely to be misunderstood, is "servile." Anything which is a means to an end is useful. Both liberal and servile education are, therefore, useful; but they differ in the ends at which they aim, and the uses to which they are put.

While it is not possible for men to live well unless they have the means of subsistence, it is quite possible for men to live, in the sense of subsisting, without living well. By living well as opposed to merely living, I do not mean having a plentiful supply of the means of subsistence as opposed to a meagre amount. It is quite possible and, unfortunately, all too easy for men not to live well with superabundant wealth. King Midas with all his gold lived no better than the poorest beggar in his court. The opposite is also true. The mendicant St. Francis lived very well indeed on very meagre means. So did Socrates. Living well involves all the activities of human life which are concerned with the creation and enjoyment of those goods that enrich the spirit of man and enhance human civilization or culture. They are the goods of leisure, that portion of man's time which is free from the biological necessity of servile work to provide the means of subsistence, and of sleep and play to remove the fatigues of toil.

Hence when I distinguish between liberal and servile education by reference to leisure and labor, I am saying that one kind of training aims at helping men to live well, and the other at helping them to earn a living. It must be remembered that we are here differentiating one kind of learning from another in terms of its purpose, not in terms of the content or subject-matter of what is being learned. Though music, logic, and physics are traditionally regarded as liberal arts and sciences, and have for centuries been part of the content of liberal education, it is possible to study them solely for the illiberal purpose of earning a living. Anything can be put to a servile use. A sonata by Mozart can be used to put the baby to sleep, and a painting by Raphael to conceal a hiding place for bonds or jewels. On the other hand, carpentry, masonry, and the other skills involved in house-building and furniture-making have usually been practised as servile arts and have traditionally been excluded from the curriculum of liberal education. Yet it is also possible to learn carpentry and related skills for the wholly liberal purpose of creating and enjoying some value that is in excess of any need for shelter or physical comfort. A Sheraton table can be placed on a platform, like a statue on a pedestal, for exhibition and with ropes around it to prevent anyone from sitting down to use it; the Parthenon no longer provides shelter for religious worship, but it can still be looked at with spiritual profit.

Nevertheless, as I shall try to show in a moment, there is good reason why certain arts, traditionally classified as liberal, are normally and properly the content of liberal education, even though they can always be misused for servile purposes. The same reason explains why other arts or skills are normally and properly excluded from liberal education, even though their products sometimes escape being consumed for the needs or conveniences of living and exist to be enjoyed for the pleasure they contribute to life. But before I divide the arts into those which are essentially liberal and those which are primarily servile, let me ask my first question about design.

What kind of education do you have in mind when you come here to consider the relation of education and design? Looked at one way, that question is too easy: in fact, it is hardly a question at all if all that is meant by "education" is the study of the principles and the acquirement of the skills of design. Let me, therefore, rephrase the question in the following way. Do you think that design should be a part of truly liberal education or do you think that training in design is primarily servile in its purpose?

2.

I realize that you cannot answer this question without first answering a more basic question about the nature of design itself, as an art or skill and as a vocation or profession. I could ask that question at once if I could suppose that you regarded poetry, music, and painting, or logic, physics, and ethics as essentially liberal subjects which men should study for the uses of leisure or for the sake of living well, and that you looked upon carpentry, cooking, and dress-making, or engineering, architecture, and ballistics as servile arts which men should study only for the sake of providing themselves and other men with the means of subsistence, together with the comforts and conveniences of life. But I know that I dare not suppose that the division of the arts into liberal and servile is generally clear, or that there is no doubt in anyone's mind about the group to which a particular art belongs; and so the question about design cannot be so easily put.

The very mention of architecture, for example, raises all the difficulties which must be faced. Throughout the philosophy of art, the question has been debated whether architecture is a servile art like farming and shoe-making, a liberal art like sculpture and painting, or somehow a mixture of both kinds of art. Those who hold that it is a mixture of both kinds of art, and this is the predominant view, usually defend their position in the following way.

They admit that architecture is not a purely liberal art, because the intention of the building or designer of buildings is certainly to provide men with the shelter they need biologically, just as they need food and clothing and all the other implements of their physical existence. On the other hand, they insist that it need not be a purely servile art, for the architect as masterbuilder, employing the auxiliary arts of sculpture and painting as well as all the engineering skills and building crafts, can have an intention beyond that of biological utility. He can try to make a beautiful as well as a serviceable building; he can design it and adorn or embellish it in ways that do not make it more serviceable, but only more beautiful. And even if he is a modern architect, who lets function wholly dictate form, he may still be engaged in producing a form or structure enjoyable to contemplate over and above something functional to be lived in or worked in.

If it is true, for the reasons just given, that architecture is a liberal as well as a servile art, then those same reasons make it possible for all servile arts to be both. As a matter of historic fact, this possibility begins to be realized as soon as men are able to rise above the most primitive conditions of human life in which all their skills go to providing the bare necessities. Once they rise above this level, they start to adorn or embellish their houses, furniture, clothing, pottery, weapons, chariots, boats, and all the other serviceable things they produce. To whatever extent and in whatever manner they design the things they make not only for the sake of rendering them serviceable, but also to enhance them with some biologically useless value, they would appear, like the architect, to be combining the motives of servile and liberal art.

As I have just used the word "design," it has two meanings which are respectively related to the servile and the liberal aims in art. In one meaning, design aims to create biologically serviceable utilities. Accordingly, improvement in the design of anything consists in increasing its utility by making it more serviceable. If this were all that design did, design would comprise all the servile arts, involve nothing but such arts, and excellence in design would be judged entirely in terms of efficiency in function. But in the other meaning, design aims to create biologically useless values, such as beautiful forms or patterns that provide aesthetic delight to the beholder. Accordingly, the design of something can be improved without increasing its functional efficiency, and excellence in design may be judged by standards independent of the measure of a thing's serviceability. To the extent that the design of serviceable things has this second aim and is subject to this second standard of excellence, it would appear to have something of the character of liberal art. Yet if we can take architecture as the prototype of design in all its manifestations, design never has the character of a purely liberal art.

The question I want to ask about design, therefore, requires me to distinguish between (1) the purely liberal arts, such as poetry, painting, and music, and (2) other arts which either do or can add what appears to be a liberal aspect to their predominantly servile character. Before I attempt to do this, let me say that I am proceeding on the assumption that there is no art that need be purely servile. Industrial design is now for the most part concerned with styling for delight's sake as well as with planning for the performance of a service. Modern industrial design has come to recognize that form should generally follow function, and styling should be subordinate to service, in all arts which by their nature are predominantly servile. Nevertheless, the modern designer would admit that functional efficiency can be increased without improvements in style, and that the form or style of utilities, implements, and machines can be improved without concomitant increases in their efficiency.

3.

The purely liberal arts, in addition to their negative characteristic of not producing things intended for the sustenance, comfort, or convenience

of life (whether or not they happen to be misused for such purposes), create things which have three positive characteristics. The first is the aesthetic delight or enjoyment they afford the beholder by their excellence of form. The second is found in the fact that each work of liberal art is absolutely unique, and as such is always set apart as superior to all copies or reproductions of itself. In other words, the liberal artist never merely lays down the specifications for producing an indefinite number of things of the same form or structure, all equally good as works of art. The third characteristic, closely related to the first and second, is the most important of all. It is that the liberal artist has something to say to the human mind, some truth about man, the human world, or human life which he expresses in the special language of his creative medium, whether that be the language of science and philosophy, the language of poetry, or the quite different languages of painting and music. The work of liberal art always communicates something or, if you will, always has a message. The greatest works of liberal art are those which, like Michelangelo's *Pieta*, Mozart's *Don Giovanni*, or Dante's *Divine Comedy*, have the most to say or the deepest truth to communicate and say or communicate it with the greatest skill, not those which say little or nothing with the technical virtuosity of supreme craftsmanship.

This third characteristic of liberal art underlies the other two. The uniqueness of a poem, a piece of music, or a painting derives from the union of its form and content; what the artist has to say determines his way of saying it. Nor can the aesthetic delight afforded by the sensible form of a work of liberal art be separated from the instruction it affords the mind. If its beauty and its truth are not identical, as Keats said, they are at least inseparable.

I am now ready to pose the question about design, or, what is the same, about all the arts which are predominantly servile. We have seen that the works of such art may provide aesthetic delight by their styling or form, either connected with a service performed or over and above mere functional utility. We know that with industrialization, most of the predominantly servile arts now seldom produce a unique work, as the handicrafts once produced a single carriage, vase, or chair. Nevertheless, there are still numerous instances of industrial design in which the product is a single, unique thing, whether a building, a vessel, a bridge, a mechanical complex, or an electronic comptometer. Hence in these two respects, design, even when industrial, can be like liberal art.

But, and here is the question, do works of predominantly servile art ever have anything at all to say? The question is not whether they have something important or profound to say. It is simply whether they have any message at all, any truth at all to communicate, any instruction for the human mind.

4.

Before you answer the question, let me tell you what consequences I would draw from a negative answer.

If design has nothing at all to say which is instructive to the mind, then whatever beauty its productions may have as a result of styling is not the same as the beauty of works of purely liberal art, for it is not a beauty that is inseparable from truth. There is all the difference in the world between that which delights by the way it instructs and that which, incidental to the service it performs, also delights.

Furthermore, if design communicates nothing and has no content of truth, then whatever uniqueness some of its productions may have is not the same as the uniqueness of works of purely liberal art, for such uniqueness is merely accidental in the particular case and not essential to the very being of the work. Anything produced by predominantly servile art or industrial design can exist perfectly in multiple reproductions turned out according to the same blueprints or specifications. It is therefore utterly different from the essential uniqueness of a work of purely liberal art, born of the inseparability of its content and form—what the artist has to say and the way he says it.

Hence if you tell me that design has nothing to say, I shall be forced to conclude that such beauty and uniqueness as works of design may have are only counterfeits of the beauty and uniqueness of works of purely liberal art; for without any intellectual content or truth to instruct the mind, their styling does not really give them the liberal aspect we at first attributed to them when we regarded them as combining both kinds of art. Further, I shall have to conclude that they have no place in the scheme of liberal education, for if they have nothing to say about man, human life, or the human world, they cannot contribute to the cultivation of the mind or spirit of man, which is the whole and exclusive purpose of liberal education. Finally, I must conclude that form or styling in design, beyond the exigencies of function or service, provides at best an empty aesthetic delight, or purely sensual pleasure; and, at worst, serves the purpose of planned obsolescense to increase a partially wasteful consumption, the only justification of which may be its support of our ever increasing industrial productivity.

You may, of course, maintain that design has something to say, in which case my only remaining question would be, What? Or you may deny the validity of the question itself by challenging my central thesis that the principal characteristic of works of purely liberal art derives from their content—the truth which, fused with beauty, instructs the mind or cultivates the spirit of man.

Against my thesis, you may point to modern painting or sculpture which, at its abstractionist extreme, seems to have nothing at all to say about man, human life, and the human world. The beauty to be found in industrial design, you may say, is no different from the beauty to be found in contemporary abstractions of all sorts; and from this you may argue that if abstractionist painting or sculpture is purely liberal art, industrial design has something

of the character of such art and to that extent at least has a place in liberal education and contributes not just to living but to living well.

I would then still have one further question to ask, but it would be about the abstractionist tendencies of modern art, and not about design. Though I shall refrain from asking it until it becomes necessary to do so, I am sure you can guess what the question is and what my answer would be.

individual creativeness and mass production

JUPP ERNST

Born in Germany, 1905. Member of the Bauhaus and "Rat für Formebung" (council for design)—industrial designer, author and director of many exhibitions of graphic arts.

The present status of our European economy is marked by the overlapping and interpenetrating character of crafts, mechanization of crafts and purely industrial manufacturing. As a whole, our European mass production is not as specialized as it is in the United States. However, a distinct direction is noticeable—particularly in the main industrial centers—toward specialization and now automation. Yet, traditional crafts and skills exist and flourish still in Europe.

For our human development and even survival it seems a decisive question whether we can succeed in developing out of the industrial age into a cultured society. It means that we must decide at some point not to just maintain and cultivate the values of an aged culture and tradition, but to understand the conditions and nature of industrial manufacturing in order to produce the characteristics of a new culture—the city, the house, furniture, tools, everything that surrounds us—of our visual environment from which we expect harmony and recreative values.

Can we demand from the operation of machines such qualities? Yes. But we must immediately divorce ourselves from expectations of a kind which only the individual work of a craftsman or artist-artisan can fulfill. "Machine culture" is very young and only few artists and designers have been able to feel themselves into the development of industrial manufacturing. This difficulty is, of course, not new and merely a repetition of earlier steps in the history of our culture, but it occurs always when something principally new enters a development.

When the Greeks began to build their temples in stone or marble they did not immediately discard the forms which they inherited from earlier buildings based on wood as a principal material. The first automobiles were also carriages without horses. In the meantime, we have learned to build "genuine" automobiles, although I do not look upon many of the tin-draped street cruisers as the last word in this educational process.

As happens in many fields of our lives, a development also takes place here which is quite dangerous: the striving for functional clarity is pushed into an opposite direction and the streamlined vehicle behaves proudly as if it were the real thing.

Returning to industrial production at its inception, it seemed obvious and logical to the manufacturer that he saw first and foremost in the workings of the machine the opportunity to produce faster and with higher profit those goods which were made originally by hand. Thus the machine began to cheat. It imitated the mechanics of hand work. The work of the machine became so flagrantly dishonest that the few remaining strong artist-individuals rebelled. Rodin said: "All things which an artist creates must be a reflection of his innermost feelings. The smile of the human soul must be apparent in the house and whatever it contains. But how few of my contemporaries feel the necessity to apply this moral judgment to their environment... Yet, now art has been driven out of our daily lives. Ideas have developed according to which what is useful does not have to be harmonious and beautiful also. Wherever we look we see ugly things resulting from this and similar justifications—they are produced in a hurry by machines without creative sensitivity."

One should not overlook the fact that Rodin's outburst occurred at the height of the early Victorian "Maschinenrausch" (the intoxication of the early machine age). Yet, if we want to be honest with ourselves, we must admit that despite the many efforts at creating decent products in most civilized industrial countries, camouflage and cheating still determine a greater part of our production: plastics which copy leather or caning, Greek or Gothic ornaments pressed in aluminum. This list could be extended to include almost every sector of our environment.

Surely, the inner wealth of products made by the sensitive skill of the artist-artisan is a result of the intimate relationship between material, tool, the emotional and intellectual makeup of a creative personality, and his relationship to a sympathetic client. But an industrial product cannot be made under the same conditions. Compared with a hand-made product, it is at once more neutral in character, but this limitation can be the specific value of an industrially manufactured product. The good form produced through the machine is often so inconspicuous, logical and self-explanatory in itself that it approaches the characteristics of the grown form in nature. Good form produced through technology is a true form wher it is developed and seen through the properties of a material which is in basic harmony with the machine process, and additionally fulfills the manifold requirements of function and culture. This trueness of form seems

to me a condition which we must firmly adhere to if we look to a future development of high quality.

Should we throw away the established skills in favor of "The New"?

I do not believe that we are permitted to do this. Especially in the education of a new generation of designers and creators of form we must establish directions that enable them to view the great tradition of the West not in a restorative sense, but as part of a continuing growth of knowledge, which will fuse the visual-imaginary world of yesterday with the great material potential of the world of today and tomorrow. Education is important because it influences the direction of our civilization beyond our lives.

If the things which we manufacture—or take part in manufacturing—should, beyond their mechanical and operational advantages, also show the "smile of the soul" (which may very well convert them into food for the soul,) it becomes imperative that the creation of good form be directed from a central and universal field of thought and feeling. Before the narrowing limits of the special condition can be explored with care, understood and shaped, an overall philosophy must be established, so that the specific remains connected with the whole.

In educating the developing artist-designer, it seems to me important that he always remain in closest possible mental and physical contact with his material, its processes, its general and special characteristics. The German pioneer in the creation of form, Richard Riemerschmid, once stated: "The materials we work with and which we see develop around us surpass in terms of educational value the best teachers. They are always there, waiting, inexhaustible, and lead the hand in developing their inherent form. . . . It is nature herself that speaks through and teaches through its matter."

One should view with caution the brilliant performance on the drafting board. This stage of creating form is reached soon enough, after a basic concept has taken shape and content through its material, and it needs merely its "registration" on paper. This way our schools for design can avoid the misconceptions, shallowness, and often the dishonesty of a design on paper which considers the material coincidental.

The natural ties between material and its correct application through the production processes of hand and machine should not and do not amount to a stultification of creative imagination. On the contrary: there is greater freedom in the realization of the imagined form when the latter retains a strong connection with hand and tool.

The psychological and physiological aspects of human activity appear in the visual arts as an entity, while they are distributed over many disciplines in the world of science. The fascinating impressions which speak out of visual images that are created with an intense desire to communicate, give form its social value. This value is not only cultural, but also economical, which should not be overlooked. But the sales curve is not a reliable measure of good form in action. Most statistical endeavors which should attempt to establish conditions for the creation of new forms deal with past experience rather than with a future form. This is no accident. Only the creator of form can give the product—aside from the logical qualities of completely understood function and practicality—such characteristics as to appeal also to our senses, causing pleasant sensations or even love for the object and what it expresses.

This spiritual-emotional power escapes statistics in the final analysis. But how can we establish a firm bridge between the rational and its opposite; between science and research and the processes of creating form? These two fields have separated in Europe and almost exist as two different worlds.

Here stands the scientist, the calculating, searching and experimenting mind. On the other side stands the artist, still largely depending on his intuitive processes of producing form.

The designer who works for and with industrial production stands between both, in the center of two fields of tension. If he is not a mere "cosmetic face lifter of industrial production" as the German designer, Georg Leowald once said, what must he do? He should know and appreciate both fields because he must get used to the idea that in his "between" position lies his strength, not his weakness, as long as he strives for true form.

There does not seem any other solution. The profession of the designer is new although it began with Leonardo da Vinci. He must be both—scientist and artist. Beyond this, the education of such individuals can and should become a model and example for a development that is arising before us: to fuse again the split sectors of our world—the rational, the intuitive, the empirical, the known and the imagined, East and West. This is a design assignment of a grand scale.

Solve it we must, to avoid the dangers of a technology unbridled by human and social considerations.

the 3 m's of design education

PETER J. B. STEVENS

Studied design in Switzerland and England. As field editor for "Design News" covered progress of European design for years, is now editor in chief of the same magazine. Member of the Institute of Executive Engineers.

With due apology to Minnesota Mining and Manufacturing—the Scotch Tape people with whom I have absolutely no connection—I have entitled my paper "The 3 M's of Design Education." These three M's concern three subjects vital to the design student if he is to graduate as a man equipped and ready for the varied life of a designer. Namely, they are the studies of materials, mechanics and

mathematics—subjects closely interconnected and daily used in the design field, yet sadly neglected in most design students' curricula as well as by the students themselves. I am certainly not an authority on the subject of education in the design field, but as someone pointed out the other day, "Who really is?—Very few of us are."

In my experience, I have never found any designer, nor in fact any man professionally engaged, who has acknowledged that he has stopped learning and has become fully educated. Furthermore, in researching for the basic material upon which these comments and recommendations could be built—in talking to a great many educators, to the top men in industry and to the designers who through their work and experience were crowned by success, I have found that there is no simple formula for a basic education that will produce a "better designer." At present, there just isn't a course in existence that in its entity, through the process of turning a handle and waiting for four years, will give birth to a "better designer." At least not through a scholastic education. Neither is it a question of designers being born and not made. I have found that the men at the top of their profession are all born quite normally and through regular channels, but these same men are primarily made what they are through the completely normal processes of hard work and hard knocks of experience.

When slicing through a generous cross-section of designers' pasts and origins, I have found that they rise to the top of their profession from all walks of life, from varied and different beginnings, from usual and unusual spheres of experience, and from conventional and radical starting careers. However, one thing that they all had in common was a highly activated sense of creativity and a genius or flair for original expression in the form of transferring their thoughts onto paper.

In industry today, there are two types of designers: the engineering designer and the industrial designer. The engineering designer blueprints specific thinking of either his sales department or of his research organization into very mechanical lines on paper; his are the basic calculations, he creates the operational mechanisms which make the product "work." He then passes his results to manufacturing for final production. Then there is the other, the industrial designer, whose status is less clear. His primary concern is to take somebody else's product needs and desires and to produce through his own thoughts an esthetically pleasing, highly practical and saleable product. This, in itself, is a very hard task indeed, especially since he must please not only himself, but satisfy his management, his engineering counterpart and above all else, his end customer—the buyer. When I say pleasing, this general expression includes not only the appearance of the product and its practicality, but also the cost, service life and other factors deemed important by the man with the cash.

Training the engineering designer is a relatively simple task, though one not without its own problems. Basically, it requires a young man interested in all the varied aspects of engineering, one with an inquiring mind and one imbued with a strong desire to create. To this, you then must add four or five intensive years of engineering education—and your end product is a graduate engineer, specializing in engineering design who is ready for design board work combined with several more years of education by his superior in the design department. More simply, he is a young man who is credited with possessing the basic learning required to do the job by having attended the necessary engineering courses, but without design experience.

Training the industrial designer is a different kettle of fish altogether. He certainly need not be an engineering specialist, since rarely will he be engaged in the intricacies of engineering. But of sheer necessity, he must first of all, before he ever considers his education, be a man who wants, more than anything else, to create. Also, he must lean toward artistic ability, so he may later express his thinking in terms of lines on paper. He must be receptive to others' ideas and preferences and bow to the complex subject of specific demand. As complicated as this may sound, he must be able to interpolate the wants of a few into the product for many. Above all these so called requirements, he must be willing to learn and forever to continue learning. Since very rarely will this designer be permitted to work by himself, he must have the ability to work closely and integrally with others since often he will be required to be another man's partner or make up a team.

In examining existing education curricula and in obtaining educators' recommendations for the future, I found that most of these gentlemen's thoughts were closely allied on a course paralleling that of the architectural student. When the architectural student graduates, he has under his belt not only the ability to render creative thoughts by visual means, but he also has the practical knowledge of engineering fundamentals. Perhaps, however, for our purposes, the architect's education is too specialized to give to our designer for the life that he will face and the work that he must do. Nevertheless, I found many of our outstanding designers today started with the foundation of an architect or at least his basic knowledge.

This brings me back to my subject—the 3 M's of the industrial designer's education. For the first "M", a subject that certainly should not escape the designer in his education, is a detailed and extended study of materials. Much of the specification and selection of materials in use today or under consideration for tomorrow is performed by the designer, or under his direct authority. He determines whether the product is to be made of wood or plastic that looks like wood or if it is to be a metal —then what metal to choose and why and what advantages each has, or if rubber, what are its properties and characteristics or often what finish to specify and for what purpose. Much is being added to the field of materials and every day industry discovers new and improved materials for use in tomorrow's products. The designer should, therefore, be completely familiar with what ma-

terials are available for his work, exactly as a surgeon who knows what instruments to call for during an operation.

My second "M" is a subject that ought to receive a lot of close attention—mathematics. I agree that this isn't always easy. In fact, it is often more than difficult to teach mathematics to an art-inclined student. You can parallel this task closely with trying to teach an engineer the rudiments of art. The design student should certainly be well-versed in basic mathematics: algebra, geometry, trigonometry and calculus to the degree that he will not be lost in the simpler equations needed to calculate the increasing problems in complex product design.

Besides the knowledge of materials and mathematics, which are closely related anyway, the designer should be given a sound knowledge of mechanics, my third "M", to a degree equal to or a little beyond that now being taught to second year engineering students. After all, it is a study of mechanics that links and completes the knowledge of materials and mathematics. Without any one of these subjects, the designer's knowledge must of necessity be stilted and in his work he will have to rely on others to inform him of the answers to the many questions that will arise. When, and only when, a designer is equipped with these three subjects by a thorough education, will he be able to complement his work fully and fruitfully in every stage and through every phase. Perhaps the integration of these three subjects—materials, mathematics and mechanics—seems too distant in the future to contemplate as a direct reality for incorporation into the designer's education. But today's industrial designers show a definite weakness along the technical lines. The problem exists now—not some time in the future.

I am sure that most of you will agree that today's needs in product design cannot be answered by one man or any one group of men. Without the engineers who design, or the designers who style a product, no one alone can single-handedly tackle any major assignment, be it a car, a machine, an aircraft, an appliance, or any other equipment that is mechanically or electrically actuated or operated. Neither the design engineer or industrial engineer could conceivably undertake a product by himself, without detrimentally affecting the end result. It reminds me of a 1949 model car that had an extremely attractive dashboard. One day the radio stopped working and I decided to fix it myself. Four hours and several bruised fingers later, I managed to remove the heater which obstructed removal of the radio. I never did get the radio out and sold the car instead. This was undoubtedly an example of a lack of cooperation between design groups. These two designers need each other to attain the best possible final result. To do this, they need to know each other's problems and to possess each other's knowledge.

Since teamwork between the engineering designer and the stylist plays such a large part in successful product design, it would be a highly desirable goal to attain if the stylist were more aware of the engineering problems and possessed some parallel knowledge to talk in equal terms on many basic problems. Equally, it would indeed be wonderful if the engineer possessed recognition of what the designer is trying to achieve, but this is a problem that someone else must impress upon a group of engineers at some other time and some other place.

You have come to Aspen to listen to some positive thinking on improving education in industrial design. What I have to recommend will, I think, better prepare a designer for his work and for the people he will work with. I recommend a tighter schedule than most schools give today in the Basic Engineering Sciences, with courses more specifically tailored toward the "three M's" I previously mentioned and to the industrial designer rather than the engineer.

why don't we have the cities we need?

MAX FRISCH.

Born in Zurich, 1911. Architect, novelist and playwright, his chief interest is city planning.

Let us consider the question: How can a bird be kept in a snail's shell without damage either to the live bird or to the pretty shell? That is more or less the problem of town planning as we see it in Europe.

As you know, all European cities were founded and their layout fixed long before motorization was even dreamt of. They were very well designed to meet the needs of people who went about their business on foot or used horse-drawn vehicles. Most citizens were tradesmen or craftsmen and lived where they worked. So they had no idea of the shuttle traffic between home and work which turns our cities into witches' cauldrons four times, or at least twice, a day.

If you invest in one of those sightseeing bus trips you will still be shown more than you can take in. A couple of attractions less does not spell a tragedy, but what is on the way out is the essence of the city, which is more than a mere accumulation of houses. . . . I mean the image of a spiritual order, the spontaneous expression of a society.

To console us there are cities like Florence or Munich or Paris, which are saved by their world-wide renown, or Siena and Rothenburg, which their very smallness keeps intact. They make up the category of beautiful cities we can still show American tourists. But it is a category without a future, for as time goes on they will be less and less capable of coping with the tasks that the future will set them. They are in the process of becoming museums where everything is beautiful and nothing is of any practical use.

Frankfurt was dreadfully damaged by bombs. The inner town in particular was practically razed to the ground. Yet the layout of the old town, which will never arise from its ruins, was preserved and the old streets are now lined with new buildings. Strangely enough, the Cathedral—the focal point of the old town seems to be no longer in its former position. Of course it has not been moved, but a suburban settlement has been built at its feet. And it is funny to see a cathedral in a suburb.

The hopes that wartime destruction would offer a unique opportunity for building rational new cities in Europe did not materialize. Perhaps I should say: "Thank God for that!", otherwise it might be used to justify the production of new bombs. What a decade of reconstruction has achieved is a monument to incredible industry, especially in Germany, but it is not town planning.

Where can we find anything more than the mere modernity of individual edifices? Where can we see the layout of a modern city where we could feel at home in the twentieth century and therefore modern in the sense that it gives a creative answer to the demands of modern man?

I do not want to be unjust merely for the sake of being brief. Marseilles can boast Le Corbusier's "Unité d'Habitation"; Rotterdam has a modern shopping centre; Stockholm has a Vallingby, the world's first planetary city; England, despite her impoverishment, was the first European country to establish "new towns". Those are a few attempts and others are under way. But they make up a very small part of the total volume of building operations carried out since the war.

What I should like to say about Switzerland is that we are doing our own destruction. We are not mad enough simply to tear down our venerable old towns to make room for modern cities. We are far madder; we widen one street after the other to make them safe for pedestrians because motor cars keep multiplying like rabbits—our public squares are only architectural at dawn, for the rest of the day they are mere parking lots—and then we erect multi-storeyed buildings which hold more people and so bring more traffic into the medieval streets. Then we invent a labyrinth of one-way streets that make our life miserable; and even that is no use. In the end we have to remove the medieval fountains, widen the streets again—though even that will not do much good—and so on, until we have destroyed the town our forefathers left us without building the city for our future descendants.

There is no lack of genial projects drafted by Le Corbusier, Gropius, Neutra, Wiener and Sert, Samona and many others. And when we study them we cannot help being amazed. For these projects are not only capable of satisfying the vital demands of our life today but would even be more economical than anything that is being done at present. Then why are they not realized? That is the question that preoccupies me most. Are democracy and planning two things that mutually exclude each other? Or, to put it differently, who is really responsible for the formation or deformation of our cities?

There are settlements of a type that have been built in large numbers and are still being built in Switzerland. They offer light, air and sunshine, as well as solid, tasteful architecture. And yet: why do I prefer to live in an ancient hovel of the old town or in a village? Indeed I am actually on the point of buying an old, old house in a little medieval town. Why? Our town planning—which is really no planning at all—estranges our towns and us. As I see it, all these settlements are ghettos for different income groups. The neighborhood is not a cross-section of the whole society. The fact that all the people that live in it have more or less the same monthly salary does not make for unity but only for uniformity. In my genuine city, instead—and I mean the sort of city that used to exist and that we must build again—I have neighbors of all sorts, both richer and poorer than myself: a lawyer, a chimney-sweep, a large family, an eccentric recluse, a toper who beats his wife, a trusty policeman, a butcher richer than all the rest of us together, a girl who has a lot of nocturnal visitors and even a singing teacher who gets on my nerves. And yet I feel better and closer to life in its many aspects when I am surrounded by a neighborhood that is lively and real than in any income-bracket ghetto however comfortable. The fate of our society depends to a great extent on whether we solve the neighborhood problem or not. I am not surprised that town planning as understood at present is incapable of finding the solution. For it is not based on a democratic order of society but on real estate speculation, and that cannot be called planning but rather the exploitation of development.

Here is another question. Who is really responsible for the development of our cities? The architect? Or the local authorities? Or the land owners? Or the whole body of citizens? I come from a country that I love insofar as it is a democracy and hate when it falls short of democracy. And I believe in the responsibility of the citizens. In other words: we have the cities we deserve.

How was it in the days when real cities were built? A prince—and that means a layman—set the problem and the architect solved it. Of course I don't want to have the princes back again! But the same principle applies to a democracy: it is for the layman and not the expert to set the problem; the expert's job is to solve it. If we replace the word layman with citizens or society we obtain the following axiom: Town planning is far more a political than a technical question.

It is symptomatic that the ancient Greeks had two meanings for the same word: "polis" is the city in the structural and in the social sense.

Why do I feel more at home in Venice than in Chicago? Or, to put it more politely, why am I happier on the Piazza of Santa Fé than in San Francisco's Market Street? I like just strolling about. It is one of the marks of a good city that I am glad to stop there and that I go there even if I have no business to do. The city should be a meeting place. For instance, I would hardly go to Wall Street if I hadn't any money, for after office hours Wall Street is a grave. But I do go to the Piazza in Venice or Santa Fé—just to stroll about, look at

the people and perhaps meet someone. I wouldn't call it a stroll when the red lights keep pulling me up in my tracks or I am forced to hurry across the street just because the crowd does so at the beck of a green light. I'd rather have a forest. Indeed I like forests but I am fond of cities too and all I ask of a city is to let me love it.

The matter with most cities nowadays is that they are frigid. I am a European and believe that love needs leisure. To speak as freely as I should when filling out one of Mr. Kinsey's questionnaires, I love a city that whispers secrets in my ear at every step; comfort cannot make me happy. And when I say, at every step, I mean that the city must allow me to be a pedestrian. For it is only as a pedestrian that I can get the feel of it. I must be able to smell and hear it, else it remains a moving picture. And is there a single city we do not already know from the movies?

Walking distance is the basic principle. Even Paris I can only feel on foot. A gallery, a bar, a cathedral, a barber's, the library, the river, a bank, collector's office—they must all be within the orbit of my whim, within walking distance. For if I have to get into my car or take a public conveyance to reach a definite goal, that involves a decision. And when I have made my decision and climbed into my car I can see a lot of people who get in my way but I feel quite alone. To stroll means to be close to people, a pedestrian among pedestrians. That makes me a member of society, even if I don't say a word to any one, and I have the exciting feeling that somebody may speak to me at any moment. I can stop when I see an attractive girl and stare into the same shop window. And so on and so forth. I have the feeling: we are in the city; I am at home here; the city belongs to me and I belong to it.

Why are we losing all this?

That is easily explained. Traffic, already now and still more in the future, needs a lot or room—many times as much room as our old European cities, which were built for pedestrians, can give it. And if we let traffic have all the room it needs the result will be that our cities will stretch out until they are no longer cities. Los Angeles is an example of this. Once I drove on and on hoping against hope to reach Los Angeles; at last I decided that I had missed it and had passed it by an hour ago. And all the time I was right in the middle of it. But Los Angeles has no middle, no inside! There are only houses, streets, gardens, streets, garages, more houses, more streets, gas stations, drug stores, cinemas, gardens, streets, houses, streets, gardens . . . until at last, thank God! the desert starts. It is the Tower of Babel tumbled down and strewn over umpteen square miles in a hundred thousand fragments.

Visualize a sketch of a city on various levels. The principle is simple enough. Take the space needed for the pedestrians, A, and that needed for motor traffic, B. Instead of placing them next to each other in the usual way, let us place them one above the other. The idea is to prevent the city from stretching out and to achieve, instead, the concentration essential to a city but in such a way that it does not turn it into a witches' cauldron. So let us put the pedestrians upstairs, and with them all the things that concern pedestrians, such as shops and shop-windows. And on the lower level the roadways for motor traffic with the parking places under the houses. The outcome of this multi-level principle is obvious. Motor traffic and pedestrian traffic no longer get in each other's way. When I am driving my car I enjoy not having to stop just because a herd of bothersome pedestrians want to cross the street. The roadway is a roadway and nothing else. And when I am on foot, after leaving my car, I can wander about lost in my thoughts like Socrates in ancient Athens, or blinded by bliss like a honeymoon couple in Venice. And now the squares that make those old towns so attractive come into their own again: squares I may saunter across any way I like; squares that are havens of rest without a single car in sight. Once again I have the feeling that I am surrounded by people I can talk to; once again I can enjoy my leisure, for the minutes I now spend waiting with tedious vexation for the red light to turn green are no longer wasted. Walking distance, I think, is essential to bring about the intensity that makes up the heart of the city; and here we have it back again. By exploiting two levels (or even three) we subtract the space modern traffic needs, so that the surface of our cities is utilized twice or three times. In other words, we retain the factor that made those old towns so alive, namely the concentration of the city within walking distance. And so it is not by the silly architectural imitation of those old towns, but on the contrary by radical modernism, that we find our way back to the genuine city which we lost through the inroads of motorization.

As I visualized my multi-level city I sang for very joy. . . . But, as always happens, my invention had already been made by others. One of them was Richard Neutra. As a matter of fact, Neutra stuck to the old system of placing the roadways between the rows of houses, only one floor lower than the footways. I don't find it an ideal solution to put the noisy race track in a tunnel between the houses. Let us go one step further and place the roadways under the houses instead of between them and the garages in the cellars. That makes a big difference, for between the houses, instead of streets, we have gardens. All those grey streets we see nowadays on the plan of any town become green. Viewed from the pedestrians' level it looks like a modern Venice, a town without motor traffic, a pedestrian's paradise like Venice, except that the canals are full of grass and flowers and trees instead of water. . . . I flattered myself that I had at least improved on Neutra, but it was an illusion, of course. All this had been sketched thirty years ago by a countryman of mine, P. Jeanneret called Le Corbusier.

If this idea is so logical that no architect who reflects can help hitting on it, why hasn't it been realized long ago?

Because it can only be realized by founding a new town, or at least a new city.

Where are the founders to be found?

It has already had one important result:

The idea of founding a city is a very uncomfortable one. For any one who even merely considers doing so cannot avoid taking decisions that stretch far beyond the sphere of architecture, decisions of a political nature. Founding a city means choosing a form of life. Once out in the wide open spaces we are stripped of all the excuses we had in our old towns, where we could always say our hands were tied. It makes us very embarrassed. Do we really know what we want? One cannot plan a city unless one knows what sort of society will live in it. In other words: In ultimate analysis what interests us is not to have a city as attractive as all the models we have seen, but first and foremost to have a society capable of solving the problems of our age. And town planning is only one of those problems, though an important and particularly obvious one.

The mayor of a German town said to me: "It's a wonderful idea, Mr. Frisch, but take my advice. Build your city without asking the people how they want to live; build it and then, if you really must, make room for democracy." That is exactly what we do not want. We want the new city to be the product and expression of a social and sovereign democracy. That is what we boast of being every day, and we have got to prove it—for instance, by building that New City.

education and design

JOHN ALEXANDER PAPPAS

Born in Constantinople in 1931. Worked and studied in Paris until 1939. Studied in Athens during the war. Now Asst. Director of the School of Fine Arts in Athens.

I shall try to talk about something I am supposed to know, that is the School of Fine Arts in Athens, where I teach. This school is the unique institution of Art in my country. It was founded about 110 years ago, a few years after the liberation of the country. Since the fall of Constantinople in 1453, Greece was enslaved. When after hard struggle for independence, the new Kingdom of Greece was formed in 1830, the condition of the country was miserable. Greece was completely destroyed, without organization, without wealth, without social order. The only organized forces were the clergy, the *sui generis* army, and the civic authorities. It was very difficult to reorganize a country whose population was under slavery for hundreds of years. Education as a governmental service, was nonexistent. During the time of slavery, the educated were finding asylum in foreign lands. Only a few private schools were in existence; some in the open and some underground.

Between the educated class and the people was a complete misunderstanding. The dream of the educated people was the resurrection of ancient Greece with the gain of freedom. This was perhaps a noble but impossible and scholastic desire. The enormous tradition prevented them from being in contact with life in their efforts to try to bring to reality prefabricated and outdated schedules.

The people, wise by instinct, were the real bearers of the genuine Greek tradition, in folklore songs, proverbs, poetry, architecture and decorative arts. For educated persons, these values were without interest and almost disdained.

This situation was to have deep influence in the intellectual and artistic fields and in general on the whole life of Greece.

The necessity to erect governmental buildings was the first official beginning of artistic movement. The architects animated by the neo-classic ideals common to all Europe at that time, and especially in Munich, gave the first impulse. The palace and other buildings of less importance were built.

During these years the School of Fine Arts was more of a vocational school than what we mean today by a school of fine arts. The teaching was confined to certain restricted areas; drawing, copies from ancient statues, elementary knowledge of architecture and basic elements of drawing.

But there was a lively collaboration between the architects and artists and the few things they knew, they knew well and completely. The best of those young artists were sent to complete their studies in Munich or Italy. Little by little and after hundreds of years of silence, you could hear again the sound of the tools on the marble in the country which had known the glory of art and perfect civilization.

The tradition of Byzantine painting could still be found in monasteries. In Athens one could find painters already influenced by western theories and ways of painting. A third category of folk painters were traveling through Greece decorating churches and private houses. Between 1850 and 1890 much important work was done in Greece. The importance of this work was mostly qualitative.

The University, the Academy, the National Museum, the Library, the Stadium, the Polytechnic School, were built during those times. Monuments, statues, and private houses of special art were another achievement of the artists of those times.

All these examples indicate a deep knowledge and understanding of measure as well as an excellent execution of art. This is in contrast to all neoclassic buildings I know in Europe and elsewhere, which represent a complete misunderstanding of Greek art and ancient Greece. These misrepresented copies show a superficial knowledge of the classical times and a dry execution of art as well as an intolerable mortuary character.

At the end of the 19th century, the French influence and especially the impressionist one, began to be the more obvious, and little by little France

was attracting a great number of Greek artists. The influence of Munich withdrew and Paris became the well-known Mecca of the artists. Then came a period of transition and research.

The aim was to return to the actual and living sources of the soul of the people and through these sources to join tradition. The effort looks forward to achieve a synthesis of actual ways of expression with genuine elements of our country. I think that a decisive point is reached in this sense.

The western art is no more the magnet for them. They refuse, as artists, to accept the definitions, the interpretations and the way of feeling of the western world. They don't consider the Italian Renaissance as the infallible school anymore.

They realize that they are in a country where East and West, Europe and Asia, are mixed, that myth is born in the East and moves Westward. So now for instance, they are looking more to Byzantine paintings and mosaics, to Eastern and Asiatic art, and popular paintings, than to western or modern art. The continuity of tradition is implicit in a people. It remains for us as artists to give it form and meaning.

Until 1932 the Polytechnic School and the School of Fine Arts were the same institution. Since, our school has been separated from the Polytechnic. The Department of Education has legal jurisdiction over the School.

The organization today is as follows:

The committee of professors is directing the school. The committee elects a Director and Assistant Director for a period of two years. With the general secretary, they are the administrators. The new professors are elected by the above committee. They have to submit their work and an exposé of their artistic activities to the judgement of the committee. Once a professor is elected, his election is recognized by the Government. A professor may teach until he reaches 65.

We are only eight professors—two for painting, two for sculpture, one for etching and engraving, one for drawing, one for history of art and one for principles of architecture and perspective.

In addition to the eight full professors, the school has three assistant professors—one for anatomy, one for education, and one for calligraphy and crafts.

This is how we conduct our courses:

Preparatory or basic course: in this department, teaching is only about drawing. The students have to pass examinations to be admitted in this first preparatory course. This course lasts one year at the end of which students have to pass a second examination, to become regular students.

The studios of painting: each one of the professors, and this holds for every department in the school, is absolutely free to teach according to his own convictions. No one from the faculty, the administration or other authority can interfere. This freedom is an absolute privilege of the individual professor, but this does not mean that each method of teaching is not subject to discussions and critics. The students learn composition—the portrait—the figure and various techniques of painting. In spring and summer we also have outdoor studios.

The studios of sculpture: the basic training is the construction of volumes—composition—the bas-relief and the figure. These stages are applied according to the capacities and the improvement shown by each student.

In the department of marble carving, we first teach knowledge of the material; then, carving of simple surfaces and of geometric volumes, exact copies of ancient models, copies from the students' own work, and last, direct carving.

In sculpture, we emphasize the construction of volumes and their valence in space as well as the principle that a sculpture has to stand up under any kind of light. We know that many sculptures presented in a pleasing or flattering light cannot afford to be moved or placed in the open air. We try to avoid this danger by teaching the students the relations between light volumes—profiles and surfaces. If the students can accept the research on the same subject, if they can accept a long and subtle discipline, this method can give them the possibility to translate into sculpture any living form, and eventually to build a work that can last and reach free expression in a very strong way.

The studios of etching and engraving are a very complete department of the school. Wood engraving—book illustration and printing—etching—dry point—aquatint—soft ground and lithography.

History of art: during the whole school year the professor undertakes only one period of ancient, renaissance or modern art. There is also a very extensive course in principles of architecture and perspective. We teach classical times—history of ancient architecture—and popular decorative arts, as well as problems related to painting and sculpture.

Anatomy, calligraphy and education: our school provides two kinds of diplomas or degrees. The first is only for art studies—for people who have the will, and I should say the temerity, to be only artists. The second, for those who want to teach in high schools. Those are required to take courses in education, calligraphy and crafts. I have tried to give you a brief idea of the history and the organization of our school in Athens.

I wish now to talk about a more substantial subject.

That is, the spirit that prevails in the school, the direction we are trying to follow. Our purpose is not to have as many students as possible. On the contrary, we want to do a severe selection, and give as few diplomas as possible.

Among 100 young people applying and passing examination in the department of painting, we select 10–12; 5 or 6 in sculpture among 20–30. Besides, each professor is able to have 2–3 free observers, as we call them. After the examinations, the students make their choice of the professor they want to have and stay with him for the whole period of their studies for a four-year term.

Students and teachers compose a sort of community. Discussions on various problems of art, visits to the museums and to the studios of artists, as well as excursions to archeological places and a

common way of living create a spiritual bond between seniors and juniors, teachers and students.

The attempt in our approach is to distinguish between the pedagogue and the trade school teacher. We know the danger, but also the advantage of this method. The danger is the exaggerated influence of the way of the professor's working and thinking on the student—as well as the one-sided view of the different problems in art and the probable monotony in teaching. The advantages are, with the presupposition of a professor wise and responsible, the formation of whole and not confused personalities.

The difficulty of the problem consists in giving to the student a good knowledge of his work—a sort of very strong backbone, to teach positive things and not literature and words meaningless in arts, and at the same time to safeguard the genuine personality of the growing future artist.

For us, knowledge is information that can be used to extend spontaneity—we treat this information as a discipline. The academies, modern or classic, or modern and classic altogether, run the risk to make sterile, to distort and mislead the young soul and mind. This can happen because of too much freedom or of excessive discipline arising of determined philosophic and aesthetic belief.

But we must choose, and must choose the least harmful way.

In my opinion, discipline and continuous work on the same subject is essential.

We must have and give the possibility of constant regeneration to the students. For us every student is a unique phenomenon. We try first to understand the nature of this uniqueness and then to assist the student in his particular way of development. As pedagogues we try to discipline ourselves not to seek followers, and for the student not to be a follower.

In Athens, in our school, we don't care for technical facilities or research of textures, nor for a pleasant, superficial and impressive interpretation of nature. On the contrary, we fight against all these mirages and their attraction on young students. What we try to do is to give them the possibility to discover nature on their own.

The main qualities we require are humility, simplicity, variety arising from each personality, and direct ways of expression. We want to give a training in the most ascetic way.

language hygiene and mass communication

ANATOL RAPOPORT

Associate Professor of Mathematical Biology, Mental Health Research Institute, U. of Michigan. Came to this country from Vienna in the middle '30's. President of the International Soc. for General Semantics 1953–55.

Let me begin by reviewing what we know or suspect about what language has meant to the human race. The human race, biology teaches us, is a "species." The exact definition of "species" is a subject of some controversy among biologists. But this controversy is about subtleties which are of interest only to specialists. A rough definition of "species" is quite clear and adequate: a species is a group of organisms which can mate among themselves and produce fertile offspring but not with members outside the group. Thus the human race is a species, because its members can all inter-mate and produce fertile offspring, but no cross between us and even our closest biological relatives (the great apes) is possible.

Biologists group species with larger divisions called genera, and these into still larger ones called families, then into orders, classes, phyla, and kingdoms.

Now there are, of course, obvious distinctions between all these groups and, in general, the farther apart groups are in this classification the greater the distinction between them. A cow looks more like a buffalo (a member of the same family) than like a horse (a member of the same order) but more like a horse than a cat (a member of the same class) but more like a cat than a lizard, but more like a lizard than a lobster. And, unlike as cows and lobsters are, a cow still looks more like a lobster than a geranium.

One of the fundamental questions of biology is how do these distinctions come about. It used to be thought that every species was suddenly created and has stayed the same through the ages, but evidence gathered in the last two hundred years pointed in another direction: species, genera, classes, etc. got to be what they are by adapting to different ways of life. How this adaptation came about is another fundamental question in biology, but it need not concern us now. The fact of adaptation speaks for itself. The giraffe got his long neck in the process of adapting to his peculiar way of living—eaching for leaves on high trees. The meat-eating lion became what he is by adapting to the business of hunting the grass-eating animals, and the antelope got her fleet feet by adapting to the business of escaping from the lion. Every species is adapted to its way of life or it would not be here. But as there are innumerable ways of making a living, so there are innumerable adaptations, and so we have hundreds of thousands of species, each admirably adapted to its way of life. Most animals are mobile, but plants are not and have no need to be, since they get their food from the air and from the soil. Nor does a tapeworm, living inside an in-

testine have any need for mobility; the ant with its complete built-in habits has no need of learning anything; a rabbit needs his timidity but has no need of formidable claws. A tiger, if he started feeling sorry for his prey, would be a sorry tiger; but if mother tigers looked on their young as prey, there would be no more tigers.

Let us now look at ourselves, our own species and see where we stand. We eat meat but we have neither the teeth nor the claws nor the agility of the carnivores of our size. How does our species stay alive? The obvious answer is probably in every one's mind: man lives by his wits. But what are wits? You can't see them like claws or muscles. There is a general understanding that "wits" are somewhere in the brain, but what does this localization tell us except that man could not live without a brain any more than he could without a liver?

Let us probe a little deeper. The brain is part of what is called a nervous system. All animals above a certain level of organization have nervous systems. The nervous system is a network of communication channels so arranged that certain messages from the environment, lights, sounds, smells, pressures, etc. are received, sorted out and transformed into other messages, which then go to muscles and glands which give out with appropriate responses. The more appropriate the responses, the greater the chances of survival for the possessor of the nervous system. Thus the appropriate response to the presence of food is generally to go after it; the appropriate response to the presence of an enemy is to flee or, perhaps, to fight. So much even the nervous system of an earthworm can do. But as we go up the scale of nervous system functioning, we find nervous systems than can do more than translate particular stimuli into particular responses. We find that responses to one set of stimuli can be switched to another set. This phenomenon is the so-called conditioned response, discovered in the laboratory of the great Russian physiologist Pavlov and now a notion as familiar to the general public as Einstein's mass-energy equation and Freud's Oedipus Complex.

The conditioned response is the most primitive known form of "learning." Conditioned response learning can be demonstrated even in the humblest animals (as long as they have a nervous system). A classical experiment performed in 1912 by Yerkes involves an earthworm in a T-tube. The worm crawls through the stem of the tube, till he comes to the cross bar. One arm leads to a comfortable moist chamber; the other to a dead end. Over some hundreds of trials, the worm "learns" to choose the right turn. That is, while for the innocent worm, the presence of the turn could call forth either a right or a left turn, for the "learned" worm, one has become a "correct" and the other a "wrong" turn.

Learning, then, is the individual's (as distinct from the species') adaptation to situations in which he happens to find himself. After learning has occurred, certain events acquire "meaning" as portenders of other events and the individual responds to these "meaningful" events as he would to the events which they have come to "mean" to him. The survival value of this ability is obvious. The young lion goes on a hunt. In his career he may attack hundreds of antelopes. It so happens that when he approaches the antelope up-wind, he is successful more often than when he approaches down-wind. The lion does not stop to figure out the reason for this—that the antelope cannot smell him as well when he approaches up-wind. But the conditioning process works for the lion as it does for the worm. The more often the up-wind approach results in success, the more often it is repeated, until the habit is ingrained. To the naïve observer watching the lion hunt it appears that the lion has taken subtle factors like wind direction into account in "thinking out" his hunting strategy, that the lion, in other words, like man, is able to "live by his wits." Who is to say that it isn't so? Yet it is important to inquire just how this apparently "intelligent" behavior comes about, because such an inquiry may shed some light on our own ability to live by our wits; and in the process one may learn something about that fantastic biological invention unique to man, which enables us to live by our wits to the extent no other animal can do—symbolic language.

Let us look more closely at our lion. In due time, he learns many things which help him get along. He learns to stalk his game properly and all the other things proper for a lion. His young son, going on a hunt with him may learn simply by imitating his father some of the things that the old lion had to find out for himself. But by and large, every young lion has to start from scratch. There is no such thing as a lion-to-lion talk of this sort: "Now approaching a gazelle is a little different from approaching an antelope. . . . Once your grandfather and I were hunting in Western Zululand, and the most remarkable thing happened . . ."

This the lions cannot do. They cannot accumulate any more experience than can be crammed in a single lion life. And this is precisely what we humans can do. This is the secret of our success, such as it is, and it is also the source of most of the troubles which are peculiar to us as a species. The mechanism which enables us to learn not only from our own experience but also from the experience accumulated through the ages by our whole species is symbolic language.

Language is a "biological invention." As such, it is only one of thousands of such inventions, which the various forms of life hit upon through the evolutionary process and which subsequently determined the further course of their particular evolutionary direction. For example, the lung was a biological invention which enabled the reptiles, who were descendants of fishes to live on land. Temperature regulation was invented by mammals and birds and made them independent of outside temperature for mobility. The lens of the eye was independently invented by vertebrates and certain mobile molluscs. Mother love, like temperature regulation peculiar to mammals and birds, insured greater chances of survival for the young. Perfect social organization was invented by certain insects,

etc. Although certain forms of language exist in other distantly related species (a most interesting dance language of the bees was recently discovered), a full-fledged grammatical language with its almost unlimited flexibility is a uniquely human invention.

Like every subsequent human invention, language has tremendous potentialities in both directions, i.e., in the direction of both adaptation and maladaptation. Language and its works is the basis of our claim to the title of crowns of creation and is also the mechanism for generating our fears of self-extinction. Language gave us science, the great religions, and the potentiality of universal human brotherhood, and language divides us into strongly organized groups with seemingly irreconcilable conflicting loyalties. Preoccupation with words and their meanings makes members of our species poets and thinkers and also makes them hopeless neurotics. As semanticists often say, we live in an ocean of words, just like a gold fish lives in a bowl of water. The analogy goes far, for we are as crucially dependent on that ocean as the fish is on his bowl. But just as the medium in which we (and the fish) are bathed contains the stuff that nurtures us, so it may contain the poisons we secrete. Leave the gold fish alone in his bowl, and he will soon die from his own excretions. The fish in the ocean fares better—he can escape the polluted region. We in our semantic ocean, like the gold fish, cannot escape. Unless we invent a language hygiene, some means of disinfecting the semantic medium we live in or developing immunities toward its poisons, our great biological invention which permits us to live in an ocean of common experience will be our undoing.

These are strong words, but I invite you to examine the evidence which led semanticists to such conclusions. Language makes possible for one individual to utilize the experience of others. This process owes its enormous efficiency to the way experience can be "collapsed" when it is represented by language. *But* (and this is a very big but) after all language does not communicate experience; it communicates a map of experience. There is no telling just by looking at a map whether it actually represents a real territory or not. Nothing is easier than to draw a map of a non-existent country. As members of the human race, however, we are forced to a very large extent to navigate by maps handed down to us from our parents and teachers. That is not all. Every time we read a newspaper, we are in a position to check against the actual territory. The works of fiction we read, the plays and movies we see, the political campaigns and advertising pressures we are subjected to are all maps, and they represent not only the way things are but also contain directions where one ought to go. In other words, we absorb from the ocean of words around us not only ideas about what is, but also values about what ought and ought not to be, what we ought and ought not desire.

At this point, the obvious question to ask is why don't people instead of arguing whose map is correct compare the maps with the actual territory and let facts speak for themselves. Yes, this seems like a very sensible thing to do, and, indeed, there is a certain area of human activity where this is done all the time. This area of activity is called "science." Science is the business of making an accurate map of our world. Accuracy is attained by constant and repeated changes in the map. The scientific map is therefore always in the state of flux. But there is in principle only one such map. Controversies, of course, always arise, but the process of settling them is prescribed for all scientists, and there is no appeal from the decisions handed down by an impartial agency—nature herself.

Language, we have seen, is a mapping of experience, and its value for our species as a biological invention is precisely in the opportunity it provides for "collapsing" experience. Take the word "chair." The number and variety of experiences behind it is enormous. I am sure right now there are those among you who are thinking of straight chairs, swivel chairs, arm chairs, rocking chairs, possibly wheel chairs. All these experiences "collapse" on a single syllable. Nevertheless, varied as these experiences are, it is unlikely that any serious arguments are likely to arise as to whether "chair" is a proper word to apply to some particular object. The word is sufficiently "neutral" to promote widespread agreement on its use. This is not true of so-called "loaded" words, that is, words which are central in controversial areas in human affairs. A favorite example of such a word is "democracy." Of course you can't point to "democracy" as you can point to a chair, but this does not disqualify it as a meaningful word (There are many perfectly real things which one cannot point to, e.g., atomic energy, the Federal Reserve System, or schizophrenia). No doubt, there are certain experiences evoked in the minds of people by the word democracy but they are probably as varied as those evoked by the word chair. But whereas the experiences evoked by "chair," can be easily compared, those evoked by "democracy" cannot, because they cannot be easily reproduced. You can get a hold of the kind of chair you have in mind or draw a picture of it to show to some one, but real as your experiences with what you call "democracy" may be, you cannot simply exhibit them to some one who has not had them. And so the experiences behind a word like "democracy" are almost impossible to compare. Democracy meant one thing to our founding fathers, another to the Jacobins, still another to Lincoln, still another to Wilson, and it means something quite different to a Chinese communist. People are concerned with democracy within voluntary organizations, within labor unions, within management echelons of corporations, there are radical differences among all these environments, so that the experiences which people call "democracy" are also radically different in each environment. Yet they all collapse on a single word. I said a while ago that "democracy" is a loaded word. By this I mean that it is difficult to subject to an objective analysis concerning its possible meanings. This is so because associated

with this word are certain beliefs which, however vague, are clung to with anxious tenacity. There is always a possibility that an analysis may shake these beliefs, and loss of cherished beliefs is a frightening experience for most of us.

Thus it comes about that certain central words, especially those describing states of affairs of prime importance to us become impermeable to analysis. And since meaning cannot be unambiguously established without thorough comparison of the connections between a word and the experiences for which it stands, loaded words tend to lose all of their meaning, except one, that is, their affective connotations. These are strengthened while objective, i.e., actual, experiential meanings are dissipated. By affective connotation I mean a generalized feeling of attraction or repulsion elicited by the word. Thus it comes about that a very large number of words, characteristically central in important aspects of human affairs have lost most of their denotations (i.e., connections with actual experience) but have acquired instead very strong affective connotations (i.e., simply good or bad feelings associated with them). A dictionary of such words could almost be made by placing opposite each word just one or two exclamations "Ah" or "Ugh." I submit a list of such randomly selected words. Hayakawa calls them purr words and growl words. See if you have difficulty in supplying the appropriate exclamation: patriotism, communism, free enterprise, neurosis, mother love, morality, immorality, success, failure, service, prudery, aggression, co-existence.

If we now go through the same list and try to think of actual experiences associated with these terms, we will find it a much harder job. The hardest job of all (something almost impossible) is to try to match experiences with some one else's radically different ones and to come to an agreement about which experiences are the "proper ones" to which each of the terms apply.

I hope it is clear now why symbolic language is a mixed blessing. On the one hand, it has the tremendous potentialities for communicating experience not only among co-existing individuals but also across generations, thus making possible the accumulation of experience for the species, something no other species is known to do. On the other hand, it must be always kept in mind that it is not experiences but only words which are communicated. Often the same words refer to different experiences in different people. Unless this is known and corrected for, confusion rather than sharing of experience results from communication. But discovering and accounting for differences of experience involves analysis of experience. There are certain areas of experience which resist analysis because analysis threatens cherished beliefs, which are anxiously clung to for psychological reasons which do not concern us now. If analysis is impossible, comparison is impossible. And if comparison of experience is impossible, the meanings of the words upon which different experiences are mapped are lost. In the process of resisting analysis, the affective connotations of the words are strengthened leading to sharp dichotomies, which split people into those "for" and those "against." Note that the sharpest splits occur precisely where neither side has any inkling of just what they are "for" or "against" except the key words which have lost their experiential meaning and have become simply rallying cries.

In passing, note the potentialities of a semantic play on the word "worth." In one context, the "worth of the individual" is used in the sense of the Judeo-Christian ethos—the individual is possessed of an immortal soul whose worth is infinite and which therefore should not be sacrified to any other objective. In another sense, the individual is "worth" so much in assets, which in a frankly competitive society is frequently taken as an indication of his achievements. Thus, given a deep conviction of the "worthiness" of the individual which is engrained at least in our professed ethos, it is easy to graft upon that conviction the notion of differential competitive "worth," the worth of a girl friend as measured by the thoroughness of her grooming, of a wife as measured by the smoothness of her hands, of a man's social standing as measured by the make of car he drives or the brand of liquor he serves. The danger to society lies in the lack of concern of the demagogue, whether he is an advertiser or a writer of pulp fiction, with the results of such manipulation. The encouragement of acquisitive and competitive distortions of the libido in consumer advertising is especially conspicuous.

I started out by saying that language is, biologically speaking the most important factor in human existence. Language is the surviving mechanism of our species, the only surviving mechanism which is peculiarly human. If the question "What makes us human?" could be answered in one word, it could be undoubtedly "language." Next I said language, like so many other human inventions has enormous potentialities both for good and for evil, that its principal danger for us humans lies in the fact that we tend to guide ourselves by verbal maps instead of by actual experience, since verbal maps can become increasingly divorced from experience without our becoming aware of the lost connections, and we thus stand in real danger of losing contact with reality, much as the increasing numbers of psychotics among us do to the extent of not being able to function. Thus the proper use of language (which involves keeping intact the connection between language and reality) is a primary concern of the behavioral scientist.

Language means everything to people. People's lives are completely wrapped up in words. An Australian witch doctor can kill a tribesman by simply pronouncing certain words. If this seems incredible, think what a common occurrence it is for a man to turn pale at the sound of properly selected words. Turning pale involves the constrictions of blood vessels. Develop a technique of constricting sufficiently many blood vessels by pronouncing certain words and you have the power to kill by using words alone.

Little is known about physiological changes produced by words calculated to manipulate affect.

But that such changes occur is beyond doubt. Therefore the use of words is in principle no different from the use of drugs and should carry similar responsibilities.

the education of advertising designers

ARMIN HOFMAN

Born in 1920 in Switzerland. Professor in the Advertising Department at the Academy of Art in Basel, he came to the United States last year as guest instructor at the Philadelphia Museum School of Art and visiting lecturer at Yale University.

The extension and development in the whole field of contemporary design started scarcely fifty years ago and grew with great speed. During these years political and economic perplexities and changes have helped this rapid evolution considerably; two world wars, economic crises, tensions between opposite political beliefs and systems, and—as the most important factor—the current unparalleled prosperity on all economic levels, fall into this period.

The media at the disposal of advertising designers with which to solve this problem are lettering and image in all variations. His work, which becomes creative formulation even if it is only the placing of some letter forms into an existing space, takes him inevitably into the sphere of artistic values and factors. Through his activity he is also responsible for the cultural image of his time. It would be an important acknowledgment if more attention were given than heretofore to those small invisible utterances of our surroundings so as not to remain in the mistaken opinion that culture can be found only within the temples of art. The inner state of an epoch manifests itself, too, in the ticket one gets on entering a museum.

Is the artistic side of the profession really given deserved attention from the proper angle if one lets the student paint abstract paintings? On the other hand, is the problem of advertising design being properly understood if the student has to face the most difficult problems by merely being well equipped with the support of *Graphis Magazine* and other such sources of information?

Not a manner of painting should be taught, but painting in its inherent qualities and principles of structure. Not end-results in advertising design should be expected from the students in their first years, but the study of the simplest, fundamental elements of construction, composition, opposition, color, and so forth. Then one would soon perceive that the question, commercial art or fine art, does not exist.

Increasing importance should be given to a fundamental and extensive study of lettering. The thoughtless copying of existing letterforms from books and magazines does not give any insight to the student into the essential nature of lettering. Only if he himself takes the trouble and attempts the time-consuming experiment of developing an alphabet of his own, will he really get acquainted with the fundamental laws of lettering. He can base this alphabet on his own ideas. Different possibilities on which to base it could be: the square, the circle, contrast, line, etc. An added positive value is that this work is at once a study of form and a raising of such questions as movement and counter-movement, black and white, round and straight, measure and scale.

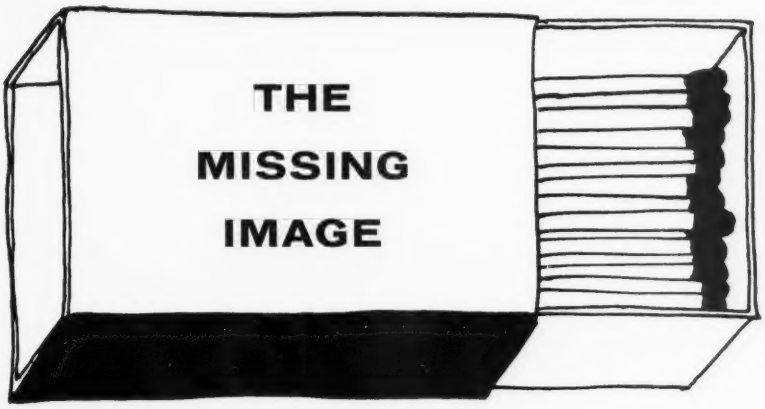
These studies also make it easier for the student to enter the nature of topography. In this field it also becomes apparent in which way the above-mentioned grey-tone exercises reach a point of practical importance. More and more the student will come to realize that everything fundamental has many ways of being put to practical use.

Other assignments which serve as a preparatory step for practical application are exercises which go beyond the ones described above. These aim at more delicate structural problems, of equilibrium between positive and negative forms and variations of a theme.

This basic training, together with an elementary color course and drawing which deals with structure rather than description, should be maintained throughout the student's education. Weight should increasingly be brought to bear on the use of knowledge in resolving problems of more and more applied character because the danger exists that students are able to realize spacing, color values and rhythms in their pure occurrences and are often forgetful of them when confronted with a figure, an object or a letter form.

These points do not represent a comprehensive educational program. In my opinion, these are merely some of the possibilities to combat the danger within the advertising design field of shrinking creativeness. The experiences which I have had the opportunity to acquire in the United States have convinced me of the necessity of a more intense and thorough instruction. The belief in a free development of the students is good in itself; however, it should not be granted to a whole class, but be given only in special cases to a talented student who has the maturity to use that freedom. In contrast to Europe, I realized, to my astonishment, that trick, superficiality and copying in advertising design are considered a legal means of expression, and that especially in education there is not enough done against this sort of "creativeness."

I hope to have added something positive to the theme of education of advertising designers and close my remarks in the strong belief that each student, within his limitations, is in possession of the capacity to give something of his own, particularly if his education and surroundings encourages this in him.



by Sam Rosenberg

Like most of the objects we see and handle every day, the match-box label is invisible. We read its message without seeing the words of the message or the design of the label. Usually, we open the box, take out the match, light our cigarette and put away the box without any recollection of the box itself. It takes a strikingly new or odd design, or a touch of schizophrenia to get the message from a commonplace object and to *see* it, too.

Hundreds of things have become invisible in this sense. The pencil, the letters on the printed page, shoes, buttons, the chair, the table, the telephone. We step outside and fail to see the buildings, the cars, the fire hydrants or the people walking on the street. Our enveloping daydreams and the interminable cinema we call consciousness mask out all other visions. Even the face and body of the beloved one become seen-unseen, visible and invisible. Sometimes we are genuinely startled to see our own faces in the bathroom mirror.

But that is not all. The famous spiller of ink, Doctor Rorschach, has been the latest expert to draw attention to the fact that when we do look hard at something we tend to see *something else instead!* I remember the consternation created by a young Lieutenant at the OSS training school when he was shown an ink-blot and asked to describe what he saw. He stared at it conscientiously for several minutes and said: "It's an ink-blot." He was rejected for overseas duty as uncooperative and anti-social.

What does it take to recover the pristine sense of an image? Plato said that if we died for a time and came back to life, the most ordinary things and actions would seem miraculous. Thornton Wilder may have acted on Plato's suggestion in *Our Town*, when he gave us an empty stage and forced us to imagine a kitchen and a variety of places and things. Later, when the dead woman returned to her former home for a single day and saw everything from the perspective of death, we shared her vision. I can still see the imaginary breakfast being cooked on an imaginary stove as clearly now as the night I saw the scene on stage, more than fifteen years ago.

Sometimes, the object itself dies and is resurrected by the archeologist or the art historian, and the drama of its re-discovery restores it to freshness. Then the museum renders us the service of removing the precious object from its context of utility and enshrining it in a glass case or on a pedestal.

So, we present the match-box label, removed from its box and surrounded by many other similar labels. They were never intended to be seen this way. Your native of a remote district in India will never in his lifetime see the box of matches intended for Ireland or the Argentine, unless through some miracle, he chances upon this issue of PRINT.

We became fascinated by the imagery of the match-box labels and wrote a letter to the Swedish Match Company in Stockholm. "Who designed these labels?" I asked, "Who decided on the particular image for each country, someone in the

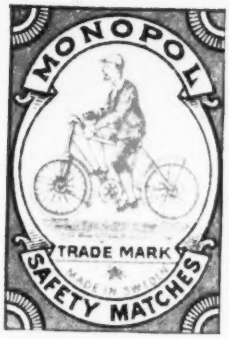
country in which the matches were to be sold, or a designer in your factory at Jonkoping? How do you explain the violence that flares up so frequently among the labels? We see tigers attacking horses, men fighting lions with their bare hands; natives crouching in ambush waiting to thrust a murderous spear; labels entitled THE KILL; other labels show men in battle, mythological monsters, volcanoes and warriors on frightened, rearing horses. Even the quiet pictures and scenes seem to be unquiet, brooding and surreal in an uncouth, and menacing way, and show us strange countries of the mind rather than the lands in which the matches will be sold. How can you explain . . . .?" I went on in this vein.

I received the answer I deserved. "We are sorry that we do not have the information you have requested. The designs were made about fifty years ago and except for some slight changes, remain in use today. The names of the designers and other such information is no longer available."

Now, thrown back on the necessity of making my own guesses, I have hit on the following:

That the flaring up of the match when it is struck evokes images associated with fire. The first of the images is the camp-fire in the jungle and the ring of darkness on the periphery of the clearing. In the darkness there are animals waiting for the fire to die out so that they can move in for the kill. Worse than the lion or tiger out there in the darkness is the fear that they might be there. Staring into the camp-fire itself brings out Rorschach-like images of monsters and men who wait in ambush ready to kill. And pretty girls.

The type of mythological images which appear so frequently on the labels are described in some psychoanalytical writing. H. G. Baynes, the English Jungian has something to say the meaning of fire in his *Mythology of The Soul:*


MONOPOL
TRADE MARK
SAFETY MATCHES

SAFETY MATCHES
LITTLE BOY BLUE
BRAND
MADE IN SWEDEN

ETY MATCHES
IN SWEDEN

UDDEVALLA SÄKERHETS-TÄNDSTICKOR
REGISTERED TRADE MARK

RADJA STAMBOEL
MADE IN SWEDEN

SNAKE FIGHT
SAFETY MATCH
MADE IN SWEDEN
IMPORTADO SOLAMENTE POR
Wm PAATS Y Cia BUENOS-AIRES

OS VERDADEIROS
PHOSPHOROS
DE SEGURANÇ

WOMAN & TIGERS
SAFETY MATCHES
MADE IN SWEDEN

BEGAM JAN
MADE IN SWEDEN

GIRL & HOOP
SAFETY MATCHES
MADE IN SWEDEN

H.M. KONINGIN
WILHELMINA 1898
KRONINGS-
LUCIFERS.

SAFETY MATCHES
MADE IN SWEDEN

G.L.G

ARTILLERY
SPE -CIALLY
SAFETY MATCH
MADE IN SWEDEN

MADE IN
SWEDEN
UDDE VALLA

THE
PUCK
SAFETY MATCHES
MADE IN SWEDEN

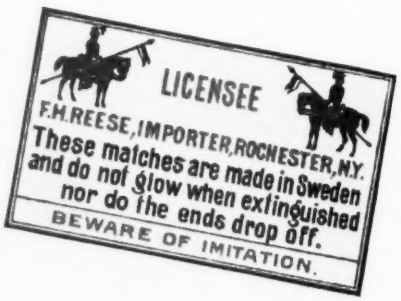
"Intense activity in the unconscious is frequently accompanied by disturbing abdominal or cardiac symptoms. The smoke and fire coming from the nostrils of pictured monsters represent this idea of intense inner activity. When vital energy is introverted into the depths of the unconscious, it is sometimes as though the subject were bathed in primordial fire.

"We find this idea of the renewal of life through fire in the initiatory rituals of the Eleusinian mystery-cult. The initiate had to go through the heart of a furnace which seemed to him like imminent death. In Rider Haggard's SHE, Ayesha regains immortal youth by plunging into a pillar of fire revolving in the heart of a mountain.

"The idea of seeking renewal of life in a volcano is also found among certain Melanesian tribes. According to Layard, who lived for a time on the island of Malekula, the idea of joining the ancestral spirits in the heart of an active volcano is the supreme desire of the natives of Atchin and Vao. They have no fear of being devoured by the fire. Apart from this belief they also venerate a god-hero who lights up both sun and moon. This god, Tagar, belongs to another tradition and is concerned with creating light rather than fire."

Another idea that comes to mind in connection with the symbolism in the designs of the match-box labels is.....

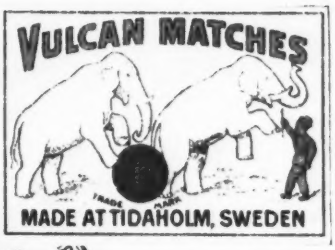
My thoughts on this subject are interrupted by a sudden recollection of my young Lieutenant in the OSS who claimed that he saw only an ink-blot. Maybe there are many, many more like him than I ever suspected, and a match-box label is only a match-box label.....


LICENSEE
F.H.REESE, IMPORTER, ROCHESTER, N.Y.
These matches are made in Sweden
and do not glow when extinguished
nor do the ends drop off.
BEWARE OF IMITATION.

LELANG KOEDA
SAFETY MATCHES
MADE IN SWEDEN

MANGO TREE
SAFETY MATCHES
MADE IN SWEDEN

SAFETY MATCH
MADE IN SWE


VULCAN MATCHES
MADE AT TIDAHOLM, SWEDEN

SWEDEN

TWO DOG
MADE IN SWEDEN
SAFETY MATCHES

TANJORE BEAUTY
SAFETY MATCHES
MADE IN SWEDEN

THE
FAKIR

GALSTAUN
KERETA KAMBING

THE JUMBO
TRADE
MARK
SAFETY MATCHES
THESE MATCHES ARE MADE IN SWEDEN

THE LION
MADE IN
SWEDEN
SAFETY MATCHES

SEE-
SAW
SAFETY MATCHES
MADE AT UDDEVALLA, SWEDEN

THE VICTORY
SAFETY MATCHES
MADE IN SWEDEN

SAFETY MATCHES
MADE IN SWEDEN

RECORD MATCHES
MADE IN SWEDEN

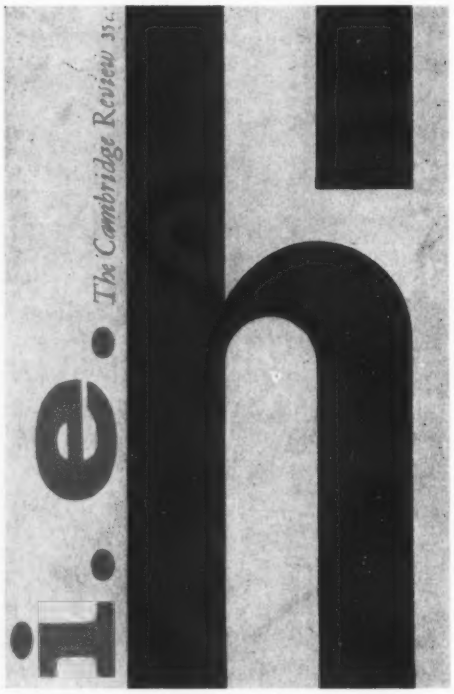
THE AUTOMOBILE
MADE IN SWEDEN
SAFETY MATCHES

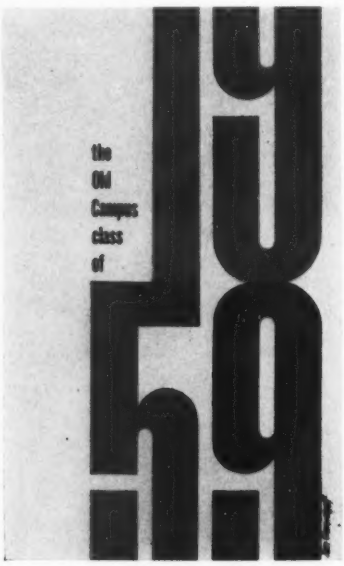
THE LION'S TAIL

Leo Lionni's four pages.

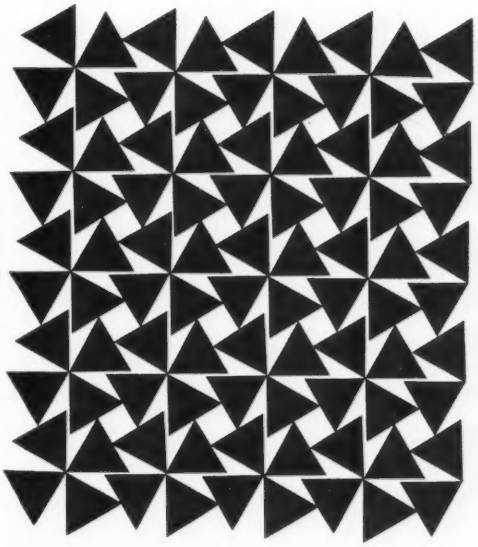
This tail's lion is from Calder's illustrations for THE FABLES OF AESOP *(Harrison of Paris, Minton, Balch & Co., New York, 1931). His gay drawings, as direct as a child's look, remind us of his wire sculpture. One can see through them, miraculously, without losing the sense of their peculiar anatomy or involvement.*

Some artists gravitate toward the nervously improvised line, others build carefully with geometric shapes, others still make visual statements by softly blending closely related colors. Ivan Chermaieff, a recent graduate of Yale's Graphic Design Course and the new art director for CRAFT HORIZONS, *derives the vitality of his compositions from the disciplined forms of type design.*





While the circle and the square are deliberate configurations saturated with the complex mysteries of symmetry, a triangle can be cut with one impulsive snip of the scissors. Here it is again, in the form of an announcement for Cooper Union, to show us that the creative possibilities of simple basic shapes are never exhausted.



The Cooper Union Art School Exhibition
The Ninety-Seventh Annual Showing
Seventh Street at Fourth Avenue

Ray Nash, Professor of Graphic Arts at Dartmouth and this year's A.I.G.A. Gold Medal winner, showed us an impressive number of proofs from his life's work, all in the great tradition of typography. Among them, surprisingly, this painstaking piece of type juggling: the carefully engineered time schedule for the Boston-Maine Railroad.

Maine Central Railroad Points

23 Bangor & Aroostook Railroad

Miles	Rail-road	27 exSat P M	27 exSat P M	15 exSun noon	READ DOWN	READ UP	22 exMon A M	12 exSun P M	16 exSun P M
0.0	B&M	9 45	9 45	12 00	Lv Boston Mass.	Ar	6 55	7 25	10 35
114.7	..	12 05	12 05	2 09	Ar Portland Me	Lv	3 30	5 15	8 25
	MC	12 20	12 20	2 15	Lv Portland Me	Ar	3 30	5 00	8 15
244.4	..	3 49	3 49	5 44	Ar No. Me. Jct.	Lv	. . .	1 35	. . .
250.1	..	4 05	.....	.....	Ar Bangor Me	Lv	11 20	.....	4 50
	..	6 53	. . .	. . .	Lv Bangor Me	Ar	10 45	. . .	4 20
	..	6 47	.....	.....	Ar No. Me. Jct.	Lv	10 45	.....	4 10
244.4	B&	6 20	. . .	. . .	Lv No. Me. Jct.	Ar	10 22	1 15	4 07
269.7	AR	7 19	.....	.....	Ar Derby Me	Lv	f9 25	12 21	3 09
280.7	..	m7 35	. . .	. . .	Lv	Ar	. . .	. . .	m2 00
284.1	..	m8 00	.....	.....	Ar Dover-Foxcroft	....	.....	.....	m1 20
301.4	..	m8 33	. . .	. . .	. . .Sangerville Me	...	. . .	. . .	m12 50
301.8	..	m8 45	.....	.....	.....Guilford ..	...	.....	.....	m12 45
307.9	..	m9 25	. . .	. . .	. . .Monson Jct.	..	. . .	. . .	m12 15
339.4	..	m10 25	.....	.....	Ar Greenville ..	Lv	.....	.....	m11 15
244.4	..	6 20	4 15	5 40	Lv No. Me. Jct.	Ar	10 22	1 15	4 07
282.1	..	7 33	5 18	6 41	Ar Milo ..	Lv	9 22	12 15	3 00
319.7	..	8 44	6 26	7 35	. . .Millinocket	..	8 17	11 11	1 48
343.7	..	9 25	7 12	8 21	.....Sherman ..	..	7 33	10 31	1 03
352.8	..	9 50	7 39	8 46	. . .Island Falls	..	7 11	10 11	12 41
364.6	..	10 08	7 56	9 01	Ar Oakfield ..	Lv	6 55	9 55	12 25
						Ar	. . .	. . .	
363.6	..	10 25	. . .	. . .	Lv	Lv	. . .	. . .	12 05
456.9	..	11 55	.....	.....	Ar Ashland ..	Lv	.....	.....	10 33
458.6	..	1 35	. . .	. . .	Ar Fort Kent ..	Lv	. . .	. . .	8 50
380.9	..	10 47	8 36	9 34	Ar Houlton ..	Lv	6 17	9 22	11 40
411.2	..	11 53	9 52	10 32	. . .Mars Hill ..	..	5 19	8 29	10 42
420.9	..	12 11	10 10	10 51	Ar Phair ..	Lv	5 00	8 11	10 22
						Ar	m4 30	m7 35	. . .
420.9	..	. . .	m10 35	m10 55	Lv	Ar	m4 30	m7 35	. . .
434.1	..	.....	m11 25	m11 25	Ar Fort Fairfield	Lv	m4 20	m7 25	.....
427.6	..	12 26	10 27	11 30	Ar Presque Isle	Lv	4 44	7 57	10 07
441.2	..	12 55	11 07	11 57	.....Caribou Me	....	4 17	7 30	9 40
450.9	..	. . .	11 39	f12 51	. . .New Sweden	..	4 00	7 13	. . .
474.3	..	.....	12 20	12 40	Ar Van Buren..	Lv	3 15	6 30	.....
	..	. . .	m12 45	. . .	Lv	Ar	b2 54	. . .	. . .
	..	.....	m2 05	.....	Ar Madawaska..	Lv	b11 12	.....	.....

Ellsworth-Bar Harbor-Calais Branch 19

Miles	Rail-road	27 exSat P M	27 exSat P M	11 exSun A M	11 exSun A M	READ DOWN	READ UP	22 exMon A M	22 exMon A M	12 exSun P M	12 exSun P M
0.0	B&M	9 45	9 45	9 40	9 40	Lv BOSTON.....Mass.	Ar	6 55	6 55	7 20	7 20
114.7	..	12 05	12 05	11 45	11 45	Ar Portland ..... Me.	Lv	3 30	3 30	5 15	5 15
	MC	12 20	12 20	12 05	12 05	Lv Portland ..... Me.	Ar	3 30	3 30	5 00	5 00
250.1	..	4 03	4 05	3 50	3 50	Ar BANGOR..... ..	Lv	11 30	11 30	1 15	1 15
264.0	..	f5 51	f5 51	f4 34	f4 34	Lv BANGOR..... ..	Ar	10 20	10 20	12 35	12 15
279.3	..	6 00	6 00	5 24	5 24	Ar Lucerne-in-Maine	Lv	f9 46	f9 46	f12 01	f12 01
						Ar ELLSWORTH Me.	Lv	9 17	9 17	11 30	11 30
								Connection		Connection	
	MC1	.....	6 13	.....	5 30	Lv Ellsworth	Ar	8 10	.....	11 00	.....
	..	. . .	6 30	. . .	6 15	Ar BAR HARBOR . .	Lv	7 25	. . .	10 15	. . . .
279.3	MC	6 14	.....	5 34	.....	Lv Ellsworth	Ar	.....	9 02	.....	11 16
281.7	..	6 20	. . .	5 41	. . . .	Ar Washington Jct. ..	Lv	. . . .	8 57	. . .	11 11
310.4	..	7 19	.....	6 41	.....	.....Cherryfield..... ..	....	.....	8 00	.....	10 15
316.2	..	7 31	. . .	6 52	. . . .	. . .Harrington... ..	....	. . .	7 44	. . .	10 01
323.1	..	7 45	.....	7 08	.....	.....Columbia Falls ..	....	.....	7 30	.....	9 48
338.8	..	8 24	. . .	7 46	. . . .	. . .Machias	....	. . . .	6 57	. . .	9 17
360.7	..	9 13	.....	8 31	.....	Ar Dennysville..... ..	Lv	.....	6 11	.....	8 30
. . .	..	9 20	. . .	8 35	. . . .	Lv Dennysville.....	Ar	. . . .	5 50	. . .	8 15
.....	..	10 20	.....	9 25	.....	Ar Eastport	Lv	.....	4 45	.....	7 15
383.6	..	10 15	. . .	9 20	. . .	Ar Calais..... ..	Lv	. . . .	5 15	. . .	7 40
	..	10 30	.....	.....	.....	Lv	Ar	.....	2 25	.....	.....
388.1	..	11 30	. . .	. . .	. . .	Ar Woodland	Lv	. . . .	1 30	. . .	. . .
		exSun	exSun	exSun	exSun			exSun	exSun	exSun	exSun

Rockland Branch 20

Miles	Rail-road	19 exSun P M	11 exSun A M	775 Sun A M	101 exSun A M	READ DOWN	READ UP	14 exSun P M	12 exSun P M	1042 Sun P M	16 exSun P M
0.0	B&M	4 50	9 40	.....	4 30	Lv BOSTON.....Mass.	Ar	1 25	7 20	8 35	10 30
114.7	..	7 10	11 45	. . .	6 32	Ar Portland ..... Me.	Lv	11 20	5 15	6 30	8 25
	MC	7 18	12 00	8 25	7 20	Lv Portland ..... Me.	Ar	10 55	5 08	6 15	7 40
133.8	..	7 48	12 30	8 59	8 01	Ar Freeport	Lv	10 23	4 37	. . .	7 00
	..	8 00	12 42	9 12	8 14	Ar BRUNSWICK ..	Lv	10 07	4 22	5 33	6 38
142.3	..	8 12	12 54	9 22	8 32	Lv BRUNSWICK ..	Ar	10 00	4 03	5 21	6 08

RWD

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Nachrichten

Justified lines are one of our less justifiable prejudices about typography. Often we have questioned the varied densities in our short newspaper lines and wondered if unjustified lines with uniform letter and word spacing would not be easier to read. J. Müller-Brockmann, who was one of this year's Aspen panelists, is responsible for this satisfactory piece of typography.

Nathan Gluck sent us this sophisticated piece of vandalism. His opus, patiently composed with scissors, paste and old engravings, will be envied by the brats who hurriedly draw whiskers, beards, and other secondary sexual attributes on the smiling heroes and heroines of our subway posters.

Antonio Palladino has written us an encouraging note about PRINT'S *Italian issue. From his letterhead comes this amusing woodcut which reminds us of the good Tuscan wine in an "osteria" not far from the Leaning Tower of Pisa.*

This elegant Indian bird is as full of calligraphy as the walls of the Alhambra in Granada. In all corners of the world man has discovered the pleasurable texture of his writing symbols and used it to enhance his architecture and his artifacts.

"The Man with the Golden Arm"

De Harak designed the poster for the theatre production of THE MAN WITH THE GOLDEN ARM. *Coming in the wake of the success of Saul Bass's designs for the movie, it must have been a difficult assignment. Sensitively interpreted and provocatively designed, the poster seems to have developed its own idiom without self-concious efforts to outdo its big brother.*

BOOK REVIEWS

PENROSE ANNUAL. Volume 50. *Edited by* R. B. Fishenden, O. B. E. Hasings House, New York, 1956. $8.50.

By Earnest Elmo Calkins

That valuable compendium of the graphic arts, Penrose Annual, comes to us this year, bigger and better than ever, wearing a triple crown of anniversaries. For although this is the fiftieth volume the publication was founded sixty years ago, two World Wars having interrupted publication. And in addition to those two milestones, its versatile and able editor, R. B. Fishenden, can look back on twenty-one years of editorship with justifiable pride.

"R.B.F.," as he seems to be known in the British Isles, has recently been honored for his contributions to the arts of printing by being awarded the O.B.E. (Order of the British Empire to you Americans). He quite logically devotes much of his preliminary "Editorial Summary" to a brief history of the publication he has done so much to make into an institution. Penrose began humbly as a sort of catalogue for a photo-engraver, "Process Work Year Book," though even then it was printed by Lund Humphries. Later Humphries acquired ownership and proceeded to broaden the scope of the book to include all aspects of the printing arts, both technical and esthetic. In 1935 R.B.F. became editor and Penrose began a remarkable career as a mirror or anthology of all ideas and inventions affecting the art preservative.

The historical note is maintained through several of the contributed papers, for there follows next an interesting discussion by Stanley Morrison of "Picture Printing and Word Printing," suggesting that the former is slowly driving out the latter. Picture printing came before type printing which then for a while eclipsed it, but now letterpress is giving way in our newspapers and magazines to copious illustration. This dilemma has arisen frequently in advertising preparation—more picture or more text?—and Mr. Morrison's thoughtful article will awaken new discussion.

Lynton Lamb has a paper on "The Graphic Design of William Nicholson," a leaf from the past that warms my heart. For Nicholson and his *alter ego*, James Pryde—known as Beggerstaff Brothers on their posters—are among my earliest favorites and did much to stimulate my interest in the graphic arts back in the 90's. Those square prints from the Russell books with their fluent heavy black line and flat color still hang framed on my walls. And even today, how magnificently they stand up! Mr. Lamb quotes a good Whistler story new to me and may be to you, with a pun in it that would delight Bennett Cerf. Whistler complimented Nicholson on his fine portrait of Queen Victoria. William modestly replied that she was a wonderful subject, to which Whistler, with his usual happiness in turning a neat phrase, replied: "You know, Her Majesty might say the same of you."

The only way to review a work so large and discussing so many varied topics is, it seems, the way Jack Horner ate his Christmas pie. A plum I

Penrose Jubilee: R. B. Fishenden, Editor of the Penrose Annual. This year marks the 50th volume of this famous English graphic arts book.

pull out with unusual satisfaction is Beatrice Warde's article, "New Light on Typographic Legibility." A report of a careful scientific study of this subject has been put out by Sir Cyrus Burt that is a neat and thorough piece of work, but Mrs. Warde points out there are factors involved in the reading of printed matter that cannot be measured by instruments of precision, intangible human factors that should be reckoned with. Written in this author's vigorous and sparkling vein, it makes delightful as well as convincing reading, and is one of the best things in the book. The subject is important to all who print, has often been discussed and never better, but many makers of books and other printed things still go their heedless ways, giving far too little attention to the eye comfort of their readers.

Among the papers of unusual interest is the one on "Postoffice Printing," meaning, of course, the British Postoffice. Its thoughtful consideration is given to three general classes, tools for its work such as postage and blank forms, informative material in the shape of directories and guide books, and public relations. The examples shown inspire the wishful thought that our own government departments, not only the postoffice, but the tax bureau and similar institutions would profit by the example, for most of such printing in our country is unsightly and almost illegible. With hundreds of young people trained to that very job why doesn't some pioneer, say, in the tax bureau, hire professional advice to make a return easy to read and understand, with space enough in which to write?

Among the historical articles well worth reading is one on old-time packaging and label designing, and there are two helpful discussions of lettering. Also a short but fascinating description of Chinese and Japanese printing in England, rounded out by a description of photo-composition of Chinese characters, in the technical section of the book. That section deserves consideration that it cannot be given here, except emphatic praise for its range, up-to-dateness and information.

But be that as it may, it is a small flaw in an excellent work. Notice should be taken of the magnificent reproduction and printing of the many examples, making the book itself a fine exhibition of the graphic arts. It should prove an inspiration to all who work in any form of those arts and a source of pleasure to all who enjoy examining good printing. R.B.F. is now a young 75; he has received many honors for his various achievements, and Penrose is not all of his work by any means. Besides being, as he himself says, an "aesthetic technician," he is a print and color consultant, serving such industries as Spicers, largest paper merchants in Britain, technical editor of Penguin Books, an expert on printing inks, and was formerly head of printing at the Manchester College of technology.

Penrose Annual has been an effective influence in England and it carries a message to craftsmen and artists in all countries, its text being summed up in the concept that all progress in the graphic arts must be achieved by the wedding of esthetic good taste with technical advancement. The book makes an impressive package, and is cheap at $1.70 a pound. PRINT congratulates R.B.F. and Lund Humphries.

DESIGN FOR BRITISH INDUSTRY, *A mid-century survey. By Michael Farr*, with a foreword and postscript by Nikolaus Pevsner. Published by the syndics of the Cambridge University Press, Cambridge 1955. 333 pages, plus 88 pages of halftone illustrations, and 38 pages of front matter. Page size 7¼" x 9¾". $11.00

By Alexander Nesbitt

This book can be recommended almost without reservation. I don't have to sit here at the typewriter and choose between a little white lie and casting a blight upon someone's toil and travail. Michael Farr, whether one agrees with him entirely or not, has done a complete job of analyzing, inspecting, and judging the design standards of British industry. His methods and conclusions are not all applicable to the American scene; but they are all carefully and painstakingly made, frankly expressed, and extremely provocative. For anyone interested in the problems of industrial design, here is compulsory reading.

The arrangement of the book is in four parts, the first of which is concerned with materials, techniques, design, methods of production, and training for designers. Part two is a careful survey of design organizations and of the research and propaganda carried on by them. The third part is an evaluation of the evidence presented in the first two parts, with various conclusions. A few suggestions for improvement make up the final, short fourth part.

It is not an easy book to read; one must take a section of it at a time. Some of the difficulty lies in the effort of the author to be completely objective—this tends to make his style rather unbending, with very few passages of relief. But, this is an objective study, from the expressed broad aim "to help towards the re-creation of an harmonious understanding between maker and user" to the final suggestions for improvement. The credo of the entire book is in the following quotation: "If such an objective (the re-creation above) can be achieved, industrial art will form the basis of a new culture in which taste will become coherent, critical judgments will be everywhere implied, and a popular standard will be acknowledged as a level of taste below which nothing should fall."

Mr. Farr does not like the design of some 80 to 90 per cent of British domestic articles. To discover something about the genesis of these articles he visited, personally, 214 firms in 27 industries, 56 retail stores, 15 art schools, and 38 designers working as consultants or free-lance. His investigations among manufacturers, wholesalers, retailers, designers, students, and the buying public are a decidedly worthwhile study. The villains in the

case are quite clearly the manufacturer and retailer; the buying public is rarely given a voice in determining design or style. Staff designers in Britain are hopeless slaveys on the whole; while the consultant designer is often brought in to save a desperate situation; and the students are still being directed toward techniques and processes instead of form and function. It is not all that simple, of course; but the story points some pretty definite fingers and takes some embarrassingly defensible stands. Maybe you think the U.S.A. is better off; maybe it is; even Mr. Farr seems to think so. I would hate to disillusion any of my countrymen; maybe they had better read the book and cogitate.

Perhaps there is a bit of overemphasis on the importance of the Bauhaus; although the criticism of its characteristic design standard as embodying "a certain narrow formalism" is quite unequivocally piercing. It is obvious that Professor Nikolaus Pevsner, who wrote the foreword and postscript, is a Bauhaus enthusiast; and he it was who chose Michael Farr to do this book, which was first offered to him but which he was unable to undertake. (He produced the forerunner of the present volume in *An Enquiry into Industrial Art in England*, published in 1937.)

"Fresh from the war and an English degree at Cambridge, a pupil of Dr. Leavis and a man with faith in modern design" is the way Mr. Pevsner introduces the author. I think everyone will have some notion of what "fresh from the war could mean—certainly a large disgust with things as they were. What a degree at Cambridge could mean to this book escapes me and the reference to Dr. Leavis is equally obscure. I do believe, however, that Michael Farr has an enduring faith in the fresh, non-disgusting, and timeless qualities of good design; and I believe this faith shows through all the facts, figures, and dead-hand pressures that are enumerated and described throughout the book.

1955/56 INTERNATIONAL POSTER ANNUAL. *Edited by Arthur Niggli.* Published by Arthur Niggli and Willy Verkauf Ltd., Teufen AR, Switzerland, 1955. Distributed in the United States by Hastings House, New York. 160 pages, $10.95

By Frank Lieberman

This is the sixth edition of what is by now almost a tradition in its field. As the title indicates it is primarily a selection of posters (about 500 of them) from 23 countries. It is a rich documentation of the work of some of the world's best poster artists and is, as the jacket blithely states, "a superb 'swipe file' and reference source for all concerned with visual design and communication."

While I found the typographic treatment of the 20 text pages a bit forced the reading content is of sufficient interest to make one easily disregard this.

I should not like to venture an opinion as to what country or artist is producing the best posters, for that could only be my personal choice, but as in everything else, "some is werry good indeed and some is simply 'orrid."

Twenty-one of the posters are reproduced in full color and, as one would expect from a Swiss publication, both they and the black and whites are beautifully reproduced.

Finally let me add a word of praise for Rudolf Hostettler who is responsible for the layout of the book: his organization and presentation of the material is truly admirable.

TRADEMARKS (Marken) *by Walter M. Kersting.* Published by Ernst Heyer, Essen, Germany, 1955. Distributed in the United States by Wittenborn & Co., New York. 124 pages, $10.50

By Frank Lieberman

I like to think that somewhere back in the dim beginnings of trade, there was quite probably a slightly bright stone ager who began to make stone axes on a commercial basis. It seems more than likely that he claimed that his were the best by God axes made anywhere and he guaranteed satisfaction or your sabre-toothed tiger cheerfully refunded and to show that *he* had made them he maybe marked each one with a great big X and it is quite possible that that is how trademarks began.

Since then the trade mark *per se* has been developed, overdeveloped, simplified and redeveloped until now trademark design has come, and rightly I think, to be a special area in contemporary commercial art.

It takes not only a strong and well developed sense of design to produce a good trademark;—it also takes a unique point of view and the ability to reduce a complex of commercial factors to a single significant symbol.

Walter Kersting, trademark designer and author of this new book, possesses all three of the above qualities to a high degree. Consequently his book should prove immensely valuable to all interested in this field.

The introductory remarks by the author, in German, will not reveal any secrets (for there are none in this trade) but the examples shown, will, one hopes, encourage many designers to follow the straightforward path that Kersting and others of his ability have taken.

This handsome book has been beautifully printed on heavy paper and carefully bound. The author's trademarks are reproduced in full page size ($7\frac{1}{2}''$ x $8\frac{1}{4}''$), each in red-brown, grey-green, black or soft turquoise matte ink. In this size the impact is considerable for the designer is faithful to the German tradition of strong line and mass.

There is no text or caption to accompany the trademarks; they are identified in a listing in the back of the book. My own preference would be to have each design identified unobtrusively on its own page but this is not a matter of great importance. What really counts is the character, imagination and power of the hundred-odd examples of this designer's work and the fact that his book can be bought in this country.

Hail, Columbia

the gem of two continents

Co
Col
Colu
Colum
Columb
Columbi
Columbia
Columbia ro
Columbia rom
Columbia roma
Columbia roman

Left: Columbia in sizes 6, 8, 10, 12, 18, 24 small, 24 large, 30, 36, 48 and 60 point.

Below: Columbia Italic in sizes 6, 8, 10, 12 18, 24 small, 24 large, 30, 36 point.

Colu
Colum
Columb
Columbi
Columbia
Columbia i
Columbia it
Columbia ital
Columbia italic

AMERICA AND EUROPE greet the new Columbia! For the first time, leading graphic designers of both continents are in accord on a new type design, and for good reason. For here is a "first time" face . . . a universal face as lacking in local prejudice as Bodoni or Garamond, and equally timeless. Columbia was designed by *Walter H. McKay of New York*, in close cooperation with century-old *Typefoundry Amsterdam of the Netherlands*. All of their rich experience has gone into this design. Here, for sure, is a face with background, balanced yet modern, poised for today, and anticipating the years to come. **Ask for specimen. Intertype matrices will soon be available in sizes 6, 8, 9, 10, 11 and 12 point.**

AMSTERDAM	CONTINENTAL

TYPES AND GRAPHIC EQUIPMENT INC.

268 Fourth Avenue, New York 10, N.Y. - SPring 7-4980

Printed by offset lithography

Columbia bold
Columbia bol
Columbia bo
Columbia b
Columbia
Columbi
Columb
Colum
Colu
Col
Co
C

Columbia italic
Columbia ital
Columbia it
Columbia i
Columbia
Columbi
Columb
Colum
Colu
Col

Left: Columbia Bold in sizes 6, 8, 10, 12, 18, 24 small, 24 large, 30, 36, 48, 60 and 72 point.

Above: Columbia Bold Italic in sizes 6, 8, 10, 12, 18, 24 small, 24 large, 30, 36, 48 and 60 point.

VOLTAIRE